

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM
CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No.1

August 15, 1974

**UNIVERSITY TRUSTEES APPROVE
1974-75 BUDGET**

Clemson University trustees approved a \$40,859,216 budget for the institution's educational and general programs in fiscal year 1974-75.

Also approved was a \$21,113,689 budget for Clemson's various public service programs.

The major portion of the educational and general budget -- \$32,134,452 -- is allocated for academic programs. Other educational and general items are auxiliary enterprises and affiliated activities (principally housing and food services), \$8,724,764.

Expenditures for public service programs include agricultural research, \$7,434,268; agricultural extension service, \$10,312,862; regulatory and public service, \$763,423; livestock-poultry health department, \$1,728,715; and forest and recreation research, \$874,421.

These programs bring the total operating budget to \$61,972,905 for 1974-75, compared to \$54,147,224 in 1973-74.

The new budget also contains a \$3,572,782 estimate of revenues earmarked by law for payment on notes and bond indebtedness incurred for permanent improvements, bringing the grand total of contemplated expenditures for 1974-75 to \$65,545,687.

In other matters the Board approved the awarding of the following construction contracts: \$39,405 to Burriss Construction Co. of Columbia for construction of a field processing laboratory at Sandhill Experiment Station in Columbia; \$16,175 to Automated Farms System of Clemson for construction of a machinery and feed

storage building at Simpson Experiment Station, Pendleton; \$42,150 to Condon Construction Co., Inc., of Greenville for construction of brooder houses at the University.

The Board also approved the recommendation of the Committee on Names of Campus Buildings and Roads to name the former post office building as Mell Hall in honor of Dr. Patrick H. Mell, Clemson president from 1902-1910. The building will be utilized by the staffs of the associate deans of students and housing offices.

In other business the Board:

--accepted a restricted gift from Charles B. Fellers of Charlotte, N.C., a 1943 Clemson graduate, to commence planning for an 18-hole championship golf course on University property, and authorized the administration to accept gifts from other sources for the same purpose.

--confirmed a resolution of the Board expressing appreciation and gratitude to A.M. Quattlebaum of Florence, a 1934 Clemson graduate who served as a Board member for 16 years, for outstanding and dedicated service to Clemson and to the cause of higher education in the state.

--approved the architectural-engineering firms of Craig and Gauldin (Greenville) for construction of the Continuing Education Building, and Riley, Bultman, Coulter (Columbia) for the Nursing Building.

--approved a recommendation that the playing field in Clemson Memorial Stadium be named Frank Howard Field in honor of the University's long-time head football coach and athletic director.

University Parking Policy Revised July 1974

BACKGROUND

This policy statement constitutes a revision of the University Parking Policy enunciated on August 9, 1973. Revisions are based on experience gained from one full year of operation under the existing policy and upon the basis of constructive suggestions which have been submitted by members of the faculty, student body, and staff.

OBJECTIVES

A. To designate planned areas for permanent parking lots which will provide adequate parking for faculty, students, and staff*as the University reaches its ultimate enrollment.

B. To locate these parking lots in a manner which is consistent with the planned expansion of the University's Building Program.

C. To eliminate all through traffic from the academic area of the University campus during the daytime hours of the academic week.

D. To provide convenient, hard-surfaced, landscaped and lighted parking for University faculty and staff within five minutes walking time to their working station, for commuter students within five to ten minutes of their classroom, and for resident students within eight to twelve minutes of their residence hall.

*(Note: The word "staff" includes every individual in the service of the University other than faculty and students.)

IMPLEMENTATION

A. Parking by faculty, students and staff will be in accordance with designations on the 1974-75 Clemson University Parking Map.

B. Reserved parking is provided only for the President of the University and in-

dividuals with a severe physical handicap. (Procedure for assignment of parking spaces for handicapped individuals is set forth in Chapter III, Article 3-6 of the Clemson University Traffic Code.)

C. The campus is divided into East Campus and West Campus, and decals are issued to faculty and staff members in accordance with their principal work location. However, the East and West designations are utilized only to assist in the determination of the number and location of parking spaces required to meet Objective D. above for faculty and staff members. The former requirement for parking in either East or West Campus according to decal will not be in effect. Instead, no-zone parking will be permitted campus-wide for faculty and staff.

D. Barriers will be in place from 7:00 a.m. to 5:00 p.m. each day of the academic week on South Palmetto Boulevard and Calhoun Drive. Faculty and staff parking will be permitted but through traffic will be prohibited. Specific attention is invited to the fact that for a motor vehicle to evade and pass a barrier in any manner is an unlawful act punishable by a fine not to exceed \$100 and the assessment of four points under the South Carolina Point System for Traffic Law Violators.

E. Due to the loss of faculty and staff parking in the area behind Long Hall which will occur upon commencement of construction of the Biological Sciences Building, the parking spaces on South Palmetto Boulevard (near the President's Home) previously assigned to resident students will be assigned to faculty and staff.

F. Because of the overall shortage of parking areas for faculty and staff, graduate students (including graduate teaching assistants) will be required to park in either the resident or commuter parking areas, as appropriate, and will obtain their decals from the Student Traffic Office.

G. Due to the use of the Clemson House as housing for students, special parking has been constructed for their use. They will

August 15, 1974

be issued an "H" Traffic Office. also been provide for permanent res faculty and staff parking. Clemson tions will be en

H. Special arrang for the parking Owners should cor Department to ar such vehicles.

I. All motorcycle spaces designated

J. Faculty, stud erate their bicy the new Bicycle bicycles be oper bicycle path. T other area, it m walked. Bicycles provided. The B fines for violat bicycles parked or manner.

K. Parking for st uate students) i use by faculty ar mined by the Vice Affairs on recom and Parking Comm

JOSE A-SOUTH, INC. 911 Northridge Street Greensboro, N. C. 27420	
Instructions by:	Phone No. 21213-10200 Date Sent to Binder
ALL INSTRUCTIONS ON BINDING TICKET WILL BE FOLLOWED EXPLICITLY	
LETTER SPINE EXACTLY AS FOLLOWS:	INSTRUCTIONS TO BINDER
Title: CLEMSON NEWSLETTER	☒ Bind as is (with covers & ads) ☐ Remove front covers ☐ Remove back covers ☐ Remove ads (front & back) ☐ Remove all ads (extra charge) ☐ Bind title page/contents in front ☐ Bind index in front ☐ Bind index in back ☐ Hand sew if necessary (extra charge)
Vol.: 14	AAB 598 Cover Color Letter in: ☒ gold; ☐ black; ☐ white
Year AUG. 15, 1974- AUG. 1, 1975	LIBRARY BOOKS: ☐ Decorated covers; ☐ plain covers; ☐ picture covers (extra charge)
Coll No.: S.C. LD1049 .C6n	SUPER-FLEX (economy binding) Uni- form height, white lettering. Covers & ads bound in. Cover color for periodicals only _____ Books & Paperbacks — cloth colors random selected by binder; binder's choice of black or white lettering. Paperbacks: ☐ Maunt front cover; ☐ Bind in covers; ☐ Discard covers.
Special Instructions:	
Use same pattern on spine as the previous Clemson Newsletters.	
Send two copies of binding slip with volume; retain one copy for your files. If item returned for correction because of binder's error, original binding slip must be returned with volume.	
BINDERY COPY	

MENTS

the faculty, the staff and any com-
 representative of the
 staff, are en-
 constructive suggestions
 king arrangements to
 and Parking Com-



DWARDS (left) lends
 (ht) of Pickens, presid-
 assembly of the annual
 the Club standard and
 for the evening, looks
 whose theme was "4-H
 ght 600 youths to the
 ug. 2.

University Parking Policy Revised July 1974

BACKGROUND

This policy statement constitutes a revision of the University Parking Policy enunciated on August 9, 1973. Revisions are based on experience gained from one full year of operation under the existing policy and upon the basis of constructive suggestions which have been submitted by members of the faculty, student body, and staff.

OBJECTIVES

A. To designate planned areas for permanent parking lots which will provide adequate parking for faculty, students, and staff*as the University reaches its ultimate enrollment.

B. To locate these parking lots in a manner which is consistent with the planned expansion of the University's Building Program.

C. To eliminate all through traffic from the academic area of the University campus during the daytime hours of the academic week.

D. To provide convenient, hard-surfaced, landscaped and lighted parking for University faculty and staff within five minutes walking time to their working station, for commuter students within five to ten minutes of their classroom, and for resident students within eight to twelve minutes of their residence hall.

*(Note: The word "staff" includes every individual in the service of the University other than faculty and students.)

IMPLEMENTATION

A. Parking by faculty, students and staff will be in accordance with designations on the 1974-75 Clemson University Parking Map.

B. Reserved parking is provided only for the President of the University and in-

dividuals with a severe physical handicap. (Procedure for assignment of parking spaces for handicapped individuals is set forth in Chapter III, Article 3-6 of the Clemson University Traffic Code.)

C. The campus is divided into East Campus and West Campus, and decals are issued to faculty and staff members in accordance with their principal work location. However, the East and West designations are utilized only to assist in the determination of the number and location of parking spaces required to meet Objective D. above for faculty and staff members. The former requirement for parking in either East or West Campus according to decal will not be in effect. Instead, no-zone parking will be permitted campus-wide for faculty and staff.

D. Barriers will be in place from 7:00 a.m. to 5:00 p.m. each day of the academic week on South Palmetto Boulevard and Calhoun Drive. Faculty and staff parking will be permitted but through traffic will be prohibited. Specific attention is invited to the fact that for a motor vehicle to evade and pass a barrier in any manner is an unlawful act punishable by a fine not to exceed \$100 and the assessment of four points under the South Carolina Point System for Traffic Law Violators.

E. Due to the loss of faculty and staff parking in the area behind Long Hall which will occur upon commencement of construction of the Biological Sciences Building, the parking spaces on South Palmetto Boulevard (near the President's Home) previously assigned to resident students will be assigned to faculty and staff.

F. Because of the overall shortage of parking areas for faculty and staff, graduate students (including graduate teaching assistants) will be required to park in either the resident or commuter parking areas, as appropriate, and will obtain their decals from the Student Traffic Office.

G. Due to the use of the Clemson House as housing for students, special parking has been constructed for their use. They will

be issued an "H" decal by the Student Traffic Office. Designated parking has also been provided near the Clemson House for permanent residents, hotel guests, faculty and staff plus visitor and timed parking. Clemson House parking designations will be enforced on a 24-hour basis.

H. Special arrangements have been made for the parking of boats and trailers. Owners should consult with the Security Department to arrange for parking of such vehicles.

I. All motorcycles shall be parked in spaces designated therefor.

J. Faculty, students and staff will operate their bicycles in accordance with the new Bicycle Code which requires that bicycles be operated along a roadway or bicycle path. To move a bicycle in any other area, it must be dismounted and walked. Bicycles will be parked in racks provided. The Bicycle Code authorizes fines for violations and impoundment of bicycles parked in an unauthorized space or manner.

K. Parking for students (including graduate students) in areas designated for use by faculty and staff will be determined by the Vice President for Student Affairs on recommendation of the Traffic and Parking Committee.

FUTURE PARKING ARRANGEMENTS

Individual members of the faculty, the student body, and the staff and any committees or bodies representative of the students, faculty, and staff, are encouraged to submit constructive suggestions for improvement of parking arrangements to the University Traffic and Parking Committee.



PRESIDENT ROBERT C. EDWARDS (left) lends a hand as Randy Looper (right) of Pickens, presiding officer at the opening assembly of the annual state 4-H conference, unfurls the Club standard and Rev. Claude McBride, speaker for the evening, looks on. The four-day meeting, whose theme was "4-H Gets It All Together," brought 600 youths to the Clemson Campus July 30 - Aug. 2.

TAX SHELTERED ANNUITIES

1. Recently the Annuities Committee of the Welfare Committee of the Faculty Senate made an analysis of the Tax Sheltered Annuity program offered at Clemson University. Each of the twenty-one companies authorized to sell tax sheltered annuities on campus was sent an extensive questionnaire. A summary of the results of these questionnaires and subsequent analysis by the Annuities Committee is made in a report entitled "Tax Sheltered Annuities." The report is quite comprehensive and the results indicate that there are significant differences between the annuity programs being offered. We would suggest that anyone owning or considering the purchase of a tax sheltered annuity read this report. A list of the companies and their local representatives (if any) is included in the report. The report was distributed to all department heads. If you cannot obtain a copy of the report through your department head, call on your faculty senator.

2. The enrollment period for purchase of tax sheltered annuities has been changed. It is now the first fifteen days of the months August through November and January through March. This permits appropriate reductions in the first paycheck of the following month.

AGRICULTURAL EDUCATION

J. A. Hash (Assoc Prof) presented a paper, "Problems of Reciprocity and Certification in the Southern Region," to the 23rd annual Southern Research Conference in Agricultural Education at Virginia Polytechnic Institute and State University, July 23-25. Dr. Hash also reported on research and development projects currently underway in the Agricultural Education Department at Clemson during the conference.

COLLEGE OF ARCHITECTURE

The Department of City and Regional Planning of the College of Architecture has completed work on five planning related projects in the Pickens County area. These projects include: The Pickens County Land Use Plan Update (which included development of some innovative techniques in the general field of planning); The Pickens County School Systems Study; Subdivision Regulations, Central, S.C.; A Government Administration Study, Pickens, S.C.; and a Public Improvements Program and Capital Improvements Budget, Pickens, S.C. Professor Glen Varenhorst, Acting Department Head, has indicated that projects for the upcoming academic year will include a Law Enforcement Management Study for the Pickens County Sheriffs Department, and an Open Space and Recreation Plan for Pickens County. These projects, as previous projects, will be incorporated within the framework of the department's planning studio course work.

AGRICULTURAL ENGINEERING

B. K. Webb (Prof) presented a paper entitled, "Basic Studies of Subsurface Injection of Herbicides" at the annual meeting of the American Society of Agricultural Engineers held in Stillwater, Okla., June 24-27. This paper was co-authored by T. H. Garner (Prof), W. K. Whitehead (former Grad Asst) and B. J. Gossett (Prof in Agronomy).

C. V. Privette (Asst Prof) presented a paper entitled "Number of Field Working Days Available for Tillage in South Carolina" at the annual meeting of the American Society of Agricultural Engineers held in Stillwater, Okla., June 24-27. The paper was co-authored by Alex Kish.

J. R. Lambert (Prof) chaired a session entitled, "Individualized Computer Service for the Farmer" at the annual meeting of the American Society of Agricultural Engineers held in Stillwater, Okla., June 24-27.

J. R. Lambert presented an invited paper entitled, "The Dynamics of Soil Water, Nutrient Ions, and Root Behavior" to the 1974 Joint Automatic Control Conference in Austin, Texas, June 20. This paper was co-authored by Donald N. Baker (Alumni Visit Prof of Agri).

M. K. Richardson (Assoc Prof) presented a paper entitled, "Automatic Control System for a Mechanical Okra Harvester," at the International Federation of Automatic Control Symposium on Automatic Control for Agriculture at Saskatoon, Saskatchewan, Canada on June 20. The paper was co-authored by James T. Craig, Jr. (MS Candidate in Mech Engr).

A grant of \$500 was received from B. F. Trappey's Sons, Inc. to be used by the Agricultural Engineering Department for continued development of the mechanical okra harvester under the direction of M. K. Richardson, principal investigator on this project.

CIVIL ENGINEERING

B. L. Edge (Assoc Prof) has been awarded a \$4,000 contract from the Seabrook Island Development Corporation to assist them in the evaluation of a means of stabilizing the beach environment on Seabrook Island.

B. L. Edge is the recipient of a \$15,000 contract from Duke Power for the purpose of studying means of destratifying reservoirs used by Duke Power in waste heat disposal from their power plants. The thermal stratification of these bodies presents potential problems to Duke, to aquatic species, and to users of the reservoir. Dr. Edge's study will address efficient ways of minimizing the stratification tendency.

CHEMISTRY

H. Garth Spencer (Prof and Hd) is on sabbatical leave in London, England, studying with Dr. J. A. Barrie at Imperial College of Science and Technology. He is expected to return by the end of December.

DIVISION OF INTERDISCIPLINARY STUDIES

F. W. Cooke (Assoc Prof and Hd) presented a paper entitled, "Effect of Material Composition on the Acceptability of Artificial Tooth Implants" at the Conference on Materials for Use in Medicine and Biology held at Cambridge University, England, July 18-19. Co-authors were Jerome J. Klawitter (Assoc Prof), Allan M. Weinstein (Asst Prof) and Drs. Richard G. Topazian and Lawrence Peterson of the Medical College of Georgia.

Four members of the Division were invited to present papers to the Sixth Annual Meeting of the Hip Society that was held in Columbia, Aug. 2-3.

F. W. Cooke (Assoc Prof and Hd) - "Biomaterials and Biomechanics in Hip Reconstruction."

J. J. Klawitter (Assoc Prof) - "Mechanical Strength of Cancellous Bone."

A. M. Weinstein (Asst Prof) - "Properties and Use of Polymethylmethacrylate."

B. W. Sauer (Assoc Prof) - "Methods of Prosthetic Fixation to Bone."

ENVIRONMENTAL SYSTEMS ENGINEERING

B. C. Dysart (Assoc Prof) has been awarded a \$46,000 contract by Westinghouse Electric Corporation to do preconstruction monitoring and baseline environmental work in conjunction with the proposed Westinghouse nuclear fuels reprocessing installation near Anderson. The contract is for one year and will have as its objective a firm definition of the pre-installation environment. Co-investigators on this contract are A. R. Abernathy (Prof), C. R. Dillon (Asst Prof, Botany), R. D. Hatcher (Assoc Prof, Geology), B.R. Ingram (Asst Prof, Zoology) and H. A. Loyacano (Asst Prof, Ent and Econ Zoology).

GEOLOGY

Recent publications: Villard S. Griffin, Jr. (Assoc Prof), "Analysis of the Piedmont in northwest South Carolina," Geological Society of America Bulletin, v. 85, pp. 1123-1138 (July).

Robert D. Hatcher, Jr. (Assoc Prof) and Josiah Bridge (U.S. Geol. Survey) two publications by the Tennessee Division of Geology, Nashville as follows: Geologic map of the Jefferson City Quadrangle, Tennessee, and Geologic map of the New Market Quadrangle, Tennessee.

Robert D. Hatcher, Jr. and George D. Swingle (Univ of Tenn), Mineral Resources of the New Market Quadrangle, Tennessee, published by the Tennessee Division of Geology, Nashville.

HORTICULTURE

J. R. Haun (Prof) published a paper, "Prediction of Spring Wheat Yields from Temperature and Precipitation Data," in the Agronomy Journal, Vol. 66, 1974.

A. R. Mazur (Asst Prof) presented a research summary at the Southern Turfgrass Work Group, held at the University of Tennessee, Knoxville. The purpose of the workgroup is to coordinate regional turfgrass research.

A. J. Lewis (Instr) has been awarded a \$2470 grant by the Union Carbide Corporation to study the horticultural applications of hydrogel polymers.

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) served June 6-13 at Princeton, N.J. as the examination leader for the Educational Testing Service, Advanced Placement Examination on AB-Calculus. He has been named Chief Reader Designate for the College Board Advanced Placement Examination in Mathematics.

A paper entitled "Reducing Graphics Programming Effort Through Structured Support," written by Richard A Lewallen (Asst Prof) was presented at the Conference on Computer Graphics and Interactive Techniques by Lois Lundberg (Lect). The conference was held at the University of Colorado, Boulder, July 15-17.

W. R. Hare (Prof) and A. Sobczyk (Martin Prof) participated by invitation in a Conference on the Geometry of Metric and Linear Spaces, held from June 17-19 at Michigan State University, East Lansing. Their contributions are to appear as papers, and in the Problems Section of the to-be-published Proceedings of the Conference.

PHYSICS AND ASTRONOMY

Carlton W. Ulbrich (Assoc Prof) and David Atlas (National Center for Atmospheric Research, Boulder, Colo) recently had a paper published in Journal De Recherches Atmospheriques entitled, "The Physical Basis for Attenuation-Rainfall Relationships and the Measurement of Rainfall Parameters by Combined Attenuation and Radar Methods."

VOGEL TO SERVE ON SREB REVIEW COMMITTEE

Dr. Henry E. Vogel, Dean of the College of Physical, Mathematical, and Biological Sciences, has been selected to serve on a Southern Regional Educational Board (SREB) committee to review travel requests under which small grants will be made to faculty and graduate students in the natural sciences, enabling them to visit Southern campuses having uncommon facilities. This grant, funded by the Alfred P. Sloan Foundation, will become available this fall and run for a period of two years. Serving with Dean Vogel on the committee are Dr. J. Chester McKee, Jr., Vice President for Research and Dean of the Graduate School at Mississippi State University and Dr. L. Ensign Johnson, Associate Provost and Professor of Electrical Engineering at Vanderbilt University. This program is designed to serve as a pilot project providing regional institutions and states with examples of the sort of educational and research opportunities that can be made available by sharing uncommon facilities. In accepting the request to serve on the committee, Dean Vogel stated, "These travel grants, under the auspices of the Southern Regional Education Board, should mark the beginning of the conversion of the Catalog of Uncommon Facilities in Southern Universities from an interesting compendium of unusual facilities to a vital role in the southern academic community."

RESERVE BOOK POLICY

The University Library Committee formulated the policy stated below. During the past two years the policy has worked very satisfactorily for both faculty and students.

1. Books will be placed on reserve for "Library Use Only", "Overnight", "Two-Day", and "Four-Day".
2. Faculty members are requested not to place books on reserve unless they are essential to their classes. It is also requested that they examine circulation records and eliminate books infrequently used.
3. Faculty members are urged to be more careful in choosing types of reserves when the books are requested so that changes need not be made during the semester.
4. Faculty members are urged to turn in their reserve lists at least two weeks before the beginning of the semester for books to be put on that semester. It would be to the advantage of faculty and students for the reserve lists to be submitted even earlier than two weeks.
5. Faculty members are encouraged to check library holdings before making up reading lists.
6. In order to facilitate the processing of reserve books, the library will process lists in the following order:

First	Books brought in with lists.
Second	Lists with call numbers.
Third	Lists with no call numbers.
7. Faculty members should submit reserve lists for additional books at least a week to 10 days before books are actually needed.
8. Because of interpretation of copyright law, the library will only make one Xerox copy of an article. If more than one copy of the article is needed, copies must be provided by the faculty member and given to the library staff. These will be treated as his personal copies and will be returned to him at the end of the semester.
9. Faculty members must notify the library staff on the form supplied if reserve books are needed for the following semester. Otherwise books will be removed from reserve at the end of each semester. If the books are to be retained, faculty members are urged to review circulation records.
10. Other than at the end of the semester, written notification from faculty members must be received before books will be removed from reserve.

NEW FACULTY AND STAFF 1974-75

The following members of the faculty and staff joined the University between August 15, 1973 and August 15, 1974.

College of Agricultural Sciences

Alper, Yekutieli, Visiting Instructor, Agricultural Engineering; B.S., Ph.D., Israel Institute of Technology; Married, three children; 40-B Daniel Drive

Brittain, Jere A., Associate Professor, Horticulture; B.S., Clemson University; Ph.D., Virginia Polytechnic Institute; Married, four children; Sandhill Station, Box 1771, Columbia 29202

Brown, William G., Jr., Associate Professor, Animal Science; B.S., University of Tennessee; M.S., Oklahoma State University; Ph.D., University of Arkansas; Married, four children; Sandhill Station, Box 1771, Columbia 29202

Ellicott, Allen R., Assistant Professor, Animal Science; B.S., Colorado State University; M.S., University of Nebraska; Ph.D., University of Illinois; Married, two children; 104 Briar Lane, Central 29630

Eversole, Arnold G., Assistant Professor, Entomology and Economic Zoology; B.S., Pennsylvania State University; M.S., Ph.D., Syracuse University; Married, one child

Halfacre, Robert G., Associate Professor, Horticulture; B.S., Clemson University; M.S., Ph.D., Virginia Polytechnic Institute; M.L.A., North Carolina State University; Married, two children; 206 Kingsway

Holder, David P., Assistant Professor, Poultry Science; B.S., M.S., Oklahoma State University; Ph.D., University of Nebraska; Married, two children; Route 2, Pendleton 29670

Jacob, Nelson L., Instructor, Agricultural Economics and Rural Sociology; B.S., M.S., Texas A&M University; Married, two children; Route 1, Box 215, Kingstree 29556

Jenny, Bruce F., Assistant Professor, Dairy Science; B.S., Delaware Valley College; M.S., Ph.D., Virginia Polytechnic Institute; Married, one child; 214 Holly Avenue

LaPrade, Jesse C., Assistant Professor, Plant Pathology and Physiology; B.S., Virginia Polytechnic Institute; M.S., North Carolina State University; Ph.D., University of Florida; Married; Pee Dee Station; 205 Quinby Circle, So. Florence 29501

Ladewig, Howard W., Assistant Professor, Agricultural Economics and Rural Sociology; B.S., M.S., Texas A&M University; Married, one child; Route 1, Bayshore, Seneca 29678

Pollet, Dale K., Assistant Professor, Entomology and Economic Zoology; B.S., M.S., Louisiana State University; Ph.D., Virginia Polytechnic Institute; Married, one child; 130 Holly Avenue

Quisenberry, Virgil L., Assistant Professor, Agronomy and Soils; B.S., M.S., Ph.D., University of Kentucky; Married; 107-A Dove Circle

NEW FACULTY AND STAFF 1974-75 (Continued)

Rawlings, Norman C., Visiting Instructor, Animal Science; B.S. Wye College, University of London; M.S., Michigan State University; Ph.D., University of Liverpool; Married, one child; 16-B Hunter Street

Rupert, Earlene A., Associate Professor, Agronomy and Soils; B.A., Huntingdon College; M.A., University of Alabama; Ph.D., University of Virginia; Widow, one daughter; Liberty Hill

Skipper, Horace D., Associate Professor, Agronomy and Soils; B.S., North Carolina State University; M.S., Ph.D., Oregon State University; Married, two children; 309 Highland Drive

Spray, Richard A., Assistant Professor, Agricultural Engineering; B.S., M.S., West Virginia University; Ph.D., University of Missouri; Married; Route 3, Hope Drive, Central 29630

Steer, John R., Instructor, Agricultural Economics and Rural Sociology; B.S., M.S., Clemson University; Single; 400 Rock Creek Road

Thompson, Carl E., Assistant Professor, Animal Science; B.S., M.S., Pennsylvania State University; Ph.D., Virginia Polytechnic Institute and Syracuse University; Married, three children; Route 2, Box 194-A2, Central 29630

Yonce, Henry D., Assistant Professor, Agronomy and Soils; B.S., Clemson University; Ph.D., University of Illinois; Married, two children; Karen Drive

College of Architecture

Stockham, James A., Assistant Professor of History and Visual Studies; M.F.A., Wayne State University; Married, two children

College of Education

Baker, Norman A., Assistant Professor of Industrial Education; B.S., Southwest Missouri State; M.S., Wisconsin State University; Ed.D., University of Missouri; Single

Hart, Lillian B., Assistant Professor of Education; B.A., Agnes Scott College; M.Ed., University of North Carolina; Ph.D., University of South Carolina; 202-A Glenwood Avenue, Anderson 29621

Henry, Theron A., Jr., Major, U.S. Air Force, Assistant Professor of Aerospace Studies; B.S., Virginia Military Institute; M.S., Florida State University; Married, two children; 205 Timberlake Road, Anderson 29621

Hunter, Joseph S., Captain, U.S. Army, Assistant Professor of Military Science; B.S., M.In.Ed., Clemson University; Married, two children; 105 Blue Ridge Drive

Jones, Grace Y., Instructor in Education; B.A., Lander College; M.Ed., Clemson University; Single; 246 Mahaffey Street, Belton 29627

NEW FACULTY AND STAFF 1974-75 (Continued)

Merritt, William P., Major, U.S. Army, Assistant Professor of Military Science; B.S., U.S. Military Academy; M.B.A., Clemson University; Married, two children; 9 Gaspe Blvd., Bayshore Estates, Seneca 29678

Mostella, Kenneth E., Captain, U.S. Army, Assistant Professor of Military Science; B.A., St. Benedicts; M.Ed., Clemson University; Married, two children; Route 5, Box 971, Forest Hills, Seneca 29678

College of Engineering

Bishop, Eugene H., Professor and Head, Mechanical Engineering; B.S., Mississippi State University; Ph.D., The University of Texas, Austin; Married, three children

Buhr, Heinrich O., Visiting Associate Professor, Environmental Systems Engineering; B.S., Ph.D., University of Cape Town, Republic of South Africa; Married, three children; 101 Cherokee Road

Delvecchio, Fred L., Project Administrator, Environmental Systems Engineering; Associate Degree, Arts and Sciences, Shoreline Community College, Seattle; Married, three children; 411 Skyview Drive

Harnett, Robert M., Assistant Professor of Systems Engineering; B.S., Louisiana Polytechnic University; M.S.O.R., Ph.D., University of Alabama in Huntsville; Married, one child

Rainey, Gilbert L., Visiting Professor of Engineering; B.S., Indiana State University; M.S., Purdue University; Married, three children; Apt. 66, Regency Town House Apartments, Central

Reuland, William B., Associate Professor of Systems Engineering; B.M.E., Georgia Tech.; M.S., University of Kansas; Ph.D., University of Arizona; Married, one child; 6-D Daniel Drive

Robinson, Gordon F., Assistant Professor of Mechanical Engineering; B.S., University of North Dakota, M.S., University of Michigan; Ph.D., Northwestern University; Married

Scott, Harvey, Associate Professor of Materials Engineering and Bioengineering; B.A., Lafayette College; M.S., Ph.D., University of Delaware; Single; 9-C Daniel Drive

Thomas, Everett L., Jr., Associate Professor of Systems Engineering; B.S., M.S., Ph.D., Oklahoma State University; Married, three children; 26 Pinecliff Drive, Seneca

College of Forest and Recreation Resources

Conover, Richard A., Assistant Professor of Recreation and Park Administration; B.A., University of Michigan; M.A., University of Wisconsin; Ph.D., Colorado State University; Married, two children; 106 Allee Street

NEW FACULTY AND STAFF 1974-75 (Continued)

Dunn, B. Allen, Assistant Professor of Forestry; B.S., M.S., Ph.D., University of Georgia; Married, two children; Route 1, Six Mile

Hook, Donal D., Director, Belle W. Baruch Research Institute and Professor of Forestry; B.S., M.S., Utah State University; Ph.D., University of Georgia; Married, four children; Hobcaw Barony, Georgetown

Labosky, Peter, Assistant Professor of Forestry; B.S., Rutgers University; M.S., Ph.D., Virginia Polytechnic Institute; Married, two children; Lakeview Heights, Seneca 29678

Nix, Lawrence E., Assistant Professor of Forestry; B.S., M.S., Mississippi State University; Ph.D., University of Georgia; Married, two children; Route 2, Box 278, Seneca 29678

Poteat, Charles E., Instructor in Recreation and Park Administration; A.B., M.A., University of North Carolina; Single

Wood, Gene W., Assistant Professor of Forestry (Belle W. Baruch Research Institute); B.S., Virginia Polytechnic Institute; M.S., Ph.D., Pennsylvania State University; Married, two children; 2227 Old Charleston Road, Georgetown

College of Industrial Management and Textile Science

Batavia, Bala N., Assistant Professor in Industrial management; M.S., Ph.D., North Carolina State University; Single

Beckwith, Samuel C., III, Part-time Visiting Lecturer in Accounting; A.B., Clemson University; M.B.A., University of South Carolina; Married; 544 Crescent Avenue, Greenville

Brown, Ralph T., Jr., Assistant Professor in Industrial Management; B.A., J.D., Washington and Lee University; Married; 400 Rock Creek Road

Byerley, Neil E., Part-time Visiting Lecturer in Accounting; B.S., B.A., University of Tennessee; M.A., University of Florida; C.P.A.; Married; P.O. Box 827, Clemson

Cox, James F., Visiting Instructor in Accounting; B.S., M.S., Clemson University; Married, one child; 878 Greenville Street, Pendleton

Drews, Michael J., Visiting Assistant Professor in Textiles; B.S., University of Wisconsin; Ph.D., North Texas State University; Married; Route 2, Box 2988, Pendleton 29670

Ireland, Marvin E., Assistant Professor in Economics; B.S., Midwestern University; M.E., Ph.D., Texas Technical University; Married

Maloney, Michael T., Instructor in Economics; B.A., Lewis College; M.A., Western Illinois University; Married, one child

NEW FACULTY AND STAFF 1974-75 (Continued)

McCormick, Robert E., Visiting Instructor in Economics; B.A., M.A., Clemson University; Married; 164 Armstrong Road

Menke, Warren W., Associate Professor in Industrial Management; S.B.E.E., Massachusetts Institute of Technology; M.E.S.S., Ph.D., Purdue University; Married, three children

O'Brien, Maureen, Instructor in Economics; B.A., Auburn University; M.A., Oklahoma State University; Single

Patrick, Clifford H., Assistant Professor in Economics; B.A., Clemson University; M.A., Ph.D., Duke University; Married, two children; 107 Clarendon Drive

Peterson, Paul F., Instructor in Industrial Management; B.B.A., Southern Methodist University; M.B.A., Clemson-Furman M.B.A. Program; Married, one child; Route 11, Singing Pines Drive, Greenville

Shaw, Sue O., Visiting Professor in Economics; A.B., Mary Washington College of the University of Virginia; A.M., Ph.D., Harvard University; Married, three children

Sheriff, Jimmy D., Assistant Professor in Accounting; B.A., Central Wesleyan College; M.B.A., Ph.D., University of Georgia; Married; Route 3, Box 335, Central

Swanson, David M., Assistant Professor in Industrial Management; B.S., University of North Carolina; M.A., University of Chicago; Ph.D., University of North Carolina; Married

Useton, Gene C., Visiting Professor in Industrial Management; B.A., Southern Methodist University; Ph.D., University of Texas; Married, three children

Vasen, George B., Part-time Visiting Lecturer in Accounting; B.S., M.S., University of Illinois; Married, two children

Woodruff, Jean L., Instructor in Industrial Management; B.A., University of North Carolina; M.B.A., Emory University; Single

College of Liberal Arts

Bowie, Linda J., Lecturer in English; B.A., M.A., Clemson University; Married, two children; 7 Hermitage Road, Greenville

DeLancey, Charles A., Visiting Instructor in Speech; B.A., Butler University; M.A., University of Georgia; Single

Golden, Richard M., Instructor in History; B.A., Vanderbilt University; M.A., The Johns Hopkins University; Married; 110 Isaqueena Village Apartments; Route 3, Central 29630

Goodall, Harold L., Jr., Visiting Instructor in Speech; B.A., Shepherd College; M.A., University of North Carolina; Married

NEW FACULTY AND STAFF 1974-75 (Continued)

Hope, Christine, Instructor in Sociology; B.A., New College; M.Phil., Yale; Single

Nesbitt, Joseph G., Jr., Assistant Professor of Psychology; B.A., West Virginia University; Ph.D., Vanderbilt University; Married

O'Neill, George W., Assistant Professor of Psychology; B.A., M.A., Ph.D., Georgia State University; Single

Patterson, Michael Y., Visiting Assistant Professor of Psychology; B.A., Clemson University; M.S., Tulane University; Married, one child

Sawyer, Raymond C., Assistant Professor of Drama; B.S., Shippensburg State College; M.A., University of Washington; Ph.D., University of Illinois; Married, one child

Schaffer, Alan, Professor and Head, History Department; B.A., New York University; M.A., Ph.D., University of Virginia; Married, four children; #14 Shorecrest Apartments

Shilstone, Frederick W., Assistant Professor of English; B.A., Vanderbilt University; M.A., Ph.D., Indiana University; Single

Sinka, Margit M., Assistant Professor of German and Spanish; B.A., Baldwin-Wallace College; M.A., Middlebury College; Ph.D., University of North Carolina; Single

Wells, Jon D., Visiting Instructor in Sociology; B.A., Western Washington State College; M.A., University of Missouri; Married

Williams, Cynthia A., Visiting Assistant Professor of French and Spanish; B.A., Kent State University; M.A., Indiana University; Single

College of Nursing

Amsteen, Mary J., Instructor; B.S.N., M.S.N., Catholic University of America

Andrews, Susan M., Instructor; B.S., University of Alabama; M.S.N., Medical College of Georgia

Arnault, Glen C., Mrs., Instructor; B.A., M.A., North Texas State University; M.L.A., Southern Methodist University; M.S.N., Texas Woman's University

Brewer, Josephine K., Mrs., Visiting Instructor; B.S.N., George Peabody College

Hardin, Nannie B., Mrs., Instructor; B.S.N., M.S.N., Wayne State University

Hill, Nina J., Mrs., Instructor; B.S., Berea College; M.N., University of South Carolina

Oktavec, Margaret G., Mrs., Instructor; B.S., M.N., Emory University

Scott, Susan L., Visiting Instructor; B.S., University of Tennessee

NEW FACULTY AND STAFF 1974-75 (Continued)

Spadoni, Rosemary A., Assistant Professor; B.S., M.S., Russell Sage College

Tanner, Gloria A., Assistant Professor; B.S.N., Mt. St. Agnes College; M.S., University of Maryland; Ed.D., Teachers College, Columbia University

Wilson, Kathleen C., Mrs., Visiting Instructor; B.S.N., M.S.N., University of Florida

College of Physical, Mathematical and Biological Sciences

Beer, Don C., Assistant Professor of Chemistry; B.S., Bluffton College; Ph.D., Indiana University; Married

McDowell, Harding K., Assistant Professor of Chemistry; B.S., Wake Forest University; Ph.D., Harvard University; Single

McKelvey, John P., Professor of Physics and Head, Department of Physics and Astronomy; B.S., M.S., Pennsylvania State University; Ph.D., University of Pittsburgh; Married, two children

Montanucci, Richard R., Assistant Professor of Zoology; B.S., University of California; M.A., Ph.D., University of Kansas; Married

Senter, Herman F., Assistant Professor of Mathematical Sciences; B.S., North Carolina State University; M.S., Institute of Textile Technology; Ph.D., North Carolina State University; Married

Sturch, Conrad R., Visiting Assistant Professor of Physics and Astronomy; B.A., M.S., Miami University (Ohio); Ph.D., University of California; Married, one child

Suber, Harry H., Visiting Assistant Professor of Mathematical Sciences; B.S., M.S., Ph.D., Clemson University; Married

Westall, James M., Jr., Assistant Professor of Mathematical Sciences; B.S., Davidson College; M.S., Ph.D., University of North Carolina; Single

Graduate Studies and University Research

Hickman, A. Darrell, Director, Division of Administrative Programming Services; B.A., Indiana University; Married, three children; Six Mile Road

The Robert Muldrow Cooper Library

Martin, James R., Reference Librarian, Social Sciences and Humanities Division; M.A., M.S., University of North Carolina; Married; 13-B Daniel Drive

NEW FACULTY AND STAFF 1974-75 (Continued)

Office of Business and Finance

Craig, Don S., Administrative Assistant, Insurance/Payroll Office; B.S., Carson Newman College; Married

Palmer, David L., Buyer, Purchasing Division; B.S., Central Wesleyan College; Married

Pringle, C. Gary, Assistant Superintendent of Building, Physical Plant; B.S., Clemson University; Married

Office for Development

Littlejohn, Albert C., Jr., TV Producer-Director, Communications Center; B.A., William and Mary; M.A., University of North Carolina; Single; Royal Oaks Apartment #16

Peele, Lucas R., Jr., Extension Information Specialist, Department of Public Relations; B.S., Clemson University; Married; Route 7, Box 350-D, Keith Drive, Anderson

Rook, Benjamin T., Assistant to the Campus Master Planner; B.Arch, M.Arch., Clemson University; Married; P.O. Box 253, Pendleton

Office of Student Affairs

Galloway, Patricia L., Clinical Director of Physical Medicine, Redfern Health Center; M.D., Medical College of Philadelphia, Pennsylvania; Married

Fast, Connie F., Residence Hall Supervisor, Student Affairs; B.A., University of South Carolina-Coastal Carolina; Married

Heller, Linda V., Residence Hall Supervisor, Student Affairs; B.S., Samford University; Married

Moorhead, James L., Assistant Track Coach and Assistant Academic Adviser, Athletic Department; B.S., Clemson University; Single

Pace, John W., Assistant Dean of Students, Student Affairs and Traffic; B.A., Clemson University; M.Ed., University of South Carolina; Married

Swicord, John Howard, Staff Physician, Redfern Health Center; M.D., South Carolina Medical College; Married

CALENDAR OF CAMPUS EVENTS

AUGUST

- 16 -- Faculty and Staff Orientation, P & AS Auditorium, 8:00 a.m.
- 17 -- Individual College Orientation
- 18 -- Architecture Exhibition: Robert Church Memorial Exhibit, Lee Gallery.
- 19 -- General Faculty and Staff Meeting, Tillman Hall Auditorium, 10:30 a.m.
- 19-20 -- Orientation, New Students.
- 21 -- University Union Street Dance: Parking lot behind Sikes Hall, 8:30 p.m. - midnight.
- 21 -- Registration, All Students.
- 22 -- Late Registration.
- 22, 23, 24 -- University Union Professional Coffeehouse Act: "The Gutter" Coffeehouse, 8:30, 9:30, 10:30 p.m. each night. (tentative)
- 23 -- Classes Begin Regular Schedule.
- 25 -- University Union Sunday Free Flick: Fail Safe, Daniel Hall Auditorium, 8:00 p.m.
- 26 -- Agronomy Seminar: "Overview of Environmental Control Work at the Savannah River Atomic Energy Plant," A-203 P & AS Bldg., 4:00 p.m.
- 29 -- Last Day For Registration.
- 29 -- Last Day to Add a Subject.
- 29 -- President and Mrs. Edwards - "At Home" to the Faculty and Staff, 8:00 - 9:30 p.m.
- 30 -- University Union Concert: "The Dean Scott Show," Outdoor Theater, 8:30 p.m.

SEPTEMBER

- 1 -- University Union Sunday Free Flick: The Fly, Daniel Hall Auditorium, 8:00 p.m.
- 2 -- French Film: Purple Noon, 315 Daniel Hall, 7:30 p.m.

CALENDAR OF CAMPUS EVENTS Continued

SEPTEMBER

- 3 -- History Film: Nicholas Ray's Rebel Without A Cause, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 5 -- Woman's Club: "Highlights of 1973-74, Previews of 1974-75," Clemson House, 3:15 p.m.
- 8 -- University Union Sunday Free Flick: Phantom of the Opera, Daniel Hall Auditorium, 8:00 p.m.
- 11 -- Fort Hill Clemson Club "Shrimp & Sip," Wilson's Landing, 6:00 p.m.
- 12 -- Music Department Chamber Music Series: "An Evening with Gilbert and Sullivan," Daniel Hall Auditorium, 8:00 p.m.
- 15 -- University Union Sunday Free Flick: The Tramp, The Vagabond and The Immigrant, Daniel Hall Auditorium, 8:00 p.m.
- 15-10/11 -- Architecture Exhibition: Pueblo Pottery of New Mexico, Lee Gallery.
- 16-20 -- Camping Program for Senior Citizens, Oconee State Park.
- 16 -- German Film: Confessions of Felix Krull, 315 Daniel Hall, 7:30 p.m.
- 16 -- Speakers Bureau: Shirley Chisholm, Tillman Hall Auditorium, 8:00 p.m.
- 16 -- JV Football: The Citadel, here, 2:00 p.m.
- 18 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 18 -- University Union Fine Arts Film: The Private Life of Henry VIII, Daniel Auditorium, 8:00 p.m. (tentative)
- 19-21 -- Fourth Annual Meeting of the Clemson Reading Conference.
- 21 -- University Union Concert: Peter Yarrow from original Peter, Paul, and Mary group, Tillman Hall Auditorium, 8:00 p.m.
- 22 -- University Union Sunday Flick: Lost Horizon, Daniel Hall Auditorium, 8:00 p.m.
- 23 -- JV Football: Furman, here, 2:00 p.m.
- 23 -- Agronomy Lecture: "U.S. Nitrogen Situation and Future Supplies," A-203 P & AS Bldg., 9:05 and 11:15 a.m.
- 23-27 -- Camping Program for Senior Citizens, Oconee State Park.

CALENDAR OF CAMPUS EVENTS Continued

SEPTEMBER

- 24 -- History Film: Robert Stevenson's Tom Brown's School Days, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 25 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 26 -- Soccer: Furman, here, 3:00 p.m.
- 26,27,28 -- University Union Professional Coffeehouse Act: "The Gutter" Coffeehouse, 8:30, 9:30, 10:30 each night (tentative).
- 28 -- Football: Georgia Tech, here, 1:00 p.m.
- 29 -- University Union Sunday Free Flick: What's Up Tiger Lilly?, Daniel Hall Auditorium, 8:00 p.m.
- 30 -- Spanish Film: Lazarillo, 315 Daniel Hall, 7:30 p.m.

OCTOBER

- 2 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 3 -- Woman's Club, "Women and Politics," Clemson House, 3:15 p.m.
- 3 -- Music Department Chamber Music Series: A recital by Charlotte Weaver, soprano and piano team of Lillian Harder and Alice Cash, Daniel Hall Auditorium, 8:00 p.m.
- 3-4 -- Conference: Sixth Southeastern Magnetic Resonance Conference, Clemson House, 9:00 a.m. - 5:00 p.m.
- 4 -- Soccer: Clemson Invitational Tournament (Howard vs. South Florida, 2:00 p.m., Clemson vs. West Virginia, 4:00 p.m.) here.
- 5 -- CDA Concert: Black Oak Arkansas, Littlejohn Coliseum, 8:00 p.m.
- 5 -- Football: Georgia, here, 1:00 p.m.
- 5 -- Chicken Barbecue for the Clemson-Georgia Game, Fike Field House, 10:30 - 12:30 p.m.
- 5 -- Medical College Admission Test.
- 6 -- University Union Sunday Free Flick: The General, YMCA Theater, 8:00 p.m.
- 6 -- Soccer: Clemson Invitational Tournament (South Florida vs. West Virginia, 1:30 p.m., Clemson vs. Howard, 3:30 p.m.) here.
- 7 -- Agronomy Lectures and Seminar: "Elements of a Fertilizer Plant Feasibility Study," A-203 P & AS Bldg., lectures, 9:05 and 11:15 a.m., seminar, 4:00 p.m.

CALENDAR OF CAMPUS EVENTS Continued

OCTOBER

- 8 -- History Club Book Discussion: Jean-Francois Revel, Without Marx or Jesus, 200 Hardin Hall, 7:30 p.m.
- 8-13 -- Clemson Players Present: A Funny Thing Happened on the Way to the Forum, Daniel Hall Auditorium, 8:00 p.m.
- 9 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 10,11,12 -- Language Conference: Mountain Interstate Foreign Language Conference, Daniel Hall.
- 12 -- Graduate School Foreign Language Test.
- 12 -- Dental Admission Test.
- 13-11/1 -- Architecture Exhibition: Bernard Freemesser - Photographs, Lee Gallery.
- 13 -- University Union Sunday Free Flick: The Mouse That Roared, YMCA Theater, 8:00 p.m.
- 13 -- Soccer: Virginia, here, 2:00 p.m.
- 14 -- Agronomy Seminar: Soil Microbial Degradation of Soil Amended Pesticides, A-203 P & AS Bldg., 4:00 p.m.
- 14 -- Russian Film: The Forty-First, 315 Daniel Hall, 7:30 p.m.
- 16 -- University Union Fine Arts Film, Jules and Jim, Daniel Hall Auditorium, 8:00 p.m. (tentative).
- 16 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 17 -- Concert Series: Royal Uppsala Chorus of Sweden, Littlejohn Coliseum, 8:00 p.m.
- 18 -- Meeting of Alumni National Council, Meeting of Clemson Foundation Directors, Election of National Officers for 1975, Alumni Center.
- 18 -- Soccer: North Carolina, here, 3:00 p.m.
- 19 -- Football: Duke (Homecoming), here, 1:00 p.m.
- 20 -- University Union Sunday Free Flick: Conqueror Worm, YMCA Theater, 8:00 p.m.
- 21 -- Soccer: Erskine, here, 3:00 p.m.
- 22 -- Foreign Language Play, Daniel Auditorium, 8:00 p.m.

CALENDAR OF CAMPUS EVENTS Continued

OCTOBER

- 23 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 23 -- Agronomy Lecture: "Fertilizer Distribution and Marketing," A-203
P & AS Bldg., 9:05 and 11:15 a.m.
- 24 -- Music Department Chamber Music Series: A program by the Anderson
String Quartet, Daniel Hall Auditorium, 8:00 p.m.
- 24 -- Chemistry Seminar: John G. Stevens, University of North Carolina at
Asheville, 131 Brackett Hall, 8:00 p.m.
- 24 -- Speakers Bureau: Orson Beam, Tillman Hall Auditorium, 8:00 p.m.
- 26 -- Graduate Record Examination.
- 26 -- Children's Literature Symposium, Daniel Hall Auditorium.
- 27 -- University Union Sunday Free Flick: Hunchback of Notre Dame, YMCA
Theater, 8:00 p.m.
- 27-29 -- Ninth Annual Regional Lipid Conference, Clemson House.
- 28 -- French Film: Phedre, 315 Daniel Hall, 7:30 p.m.
- 29 -- History Film: Frank Capra's Mr. Smith Goes To Washington, 200 Hardin
Hall, 2:30 and 7:30 p.m.
- 30 -- Lecture: Maynard Mack, Professor of English at Yale, Daniel Hall
Auditorium, 4:00 p.m.
- 30 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 31 -- Chemistry Seminar: E.E. Muschlitz, University of Florida, 131 Brackett
Hall, 8:00 p.m.

NOVEMBER

- 1 -- JV Football: Ferrum Junior College, here, 2:00 p.m.
- 2 -- Optometry Pre-Admission Test.
- 2 -- Admission Test for Graduate Study in Business.
- 3 -- University Union Sunday Free Flick: Casino Royale, YMCA Theater, 8:00 p.m.
- 3 -- Soccer: N.C. State, here, 2:00 p.m.

CALENDAR OF CAMPUS EVENTS Continued

NOVEMBER

- 3-29 -- Architecture Exhibition: Spring Mills Traveling Art Show 1974, Lee Gallery.
- 4 -- Speech Night Contest, Daniel Hall Auditorium, 7:30 p.m.
- 5 -- Classes Suspended.
- 6 -- Agronomy Lecture: "Fertilizer Situation and Outlook," A-203 P & AS Bldg., 9:05 and 11:15 a.m.
- 6 -- Management Science Seminar: "Management Science in the United Kingdom," 310 Sirrine Hall, 3:00 p.m.
- 6 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 7 -- Management Science Seminar: "Model Building With Multiple Objectives," 301 Sirrine Hall, 3:00 p.m.
- 7 -- Woman's Club, "Holiday Ideas" with Nancy Welch, Clemson House, 3:15 p.m.
- 7,8,9 -- University Union Professional Coffeehouse Act: "The Gutter" Coffeehouse, 8:30, 9:30, 10:30 p.m. each night (tentative).
- 9 -- Football: North Carolina (IPTAY Day), here, 1:00 p.m.
- 10 -- Soccer: Maryland, here, 2:00 p.m.
- 11 -- Spanish Film: The Green Wall, 315 Daniel Hall, 7:30 p.m.
- 11-15 -- Preregistration
- 13 -- University Union Fine Arts Film: Diary of a Country Priest, Daniel Hall Auditorium, 8:00 p.m. (tentative).
- 13 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 14 -- Music Department Chamber Series: Hong Shik Min, tenor, and Linda Barlage, piano, Daniel Hall Auditorium, 8:00 p.m.
- 14 -- Chemistry Seminar: Robert F. Nelson, University of Georgia, 131 Brackett Hall, 8:00 p.m.
- 14 -- Speakers Bureau: "Who Killed JFK?" with Bob Katz, Tillman Hall Auditorium, 7:00 p.m.
- 14,15,16 -- University Union Professional Coffeehouse Act: "The Gutter," Coffeehouse, 8:30, 9:30, 10:30 p.m. each night (tentative).
- 16 -- Football: Virginia (Parents Day), here, 1:00 p.m.

CALENDAR OF CAMPUS EVENTS Continued

NOVEMBER

- 16 -- Declamation Contest, Daniel Hall, 8:00 a.m. - 3:00 p.m.
- 17 -- University Union Sunday Free Flick: The Trip, YMCA Theater, 8:00 p.m.
- 19 -- History Film: Ken Russell's Dante's Inferno, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 19 -- Concert Series: George Bernard Shaw's Don Juan in Hell, Littlejohn Coliseum, 8:00 p.m.
- 19-24 -- Clemson Players present the second production of the season, Daniel Hall Auditorium, 8:00 p.m.
- 20 -- Fort Hill Clemson Club Quarterback Luncheon, Clemson House, 12 noon.
- 22 -- Concert Series: Massed Bands, Pipes, Drums and Dancers of Her Majesty's Welsh Guards and Argyll and Sutherland Highlanders, Littlejohn Coliseum, 8:00 p.m.
- 22-23 -- Engineering Open House, (22) 4:00 - 10:00 p.m., (23) 8:00 a.m. - 12 noon, reception following USC game, Alumni Center.
- 23 -- Football: South Carolina, here, 1:00 p.m.
- 24 -- University Union Sunday Free Flick: Mr. Roberts, YMCA Theater, 8:00 p.m.
- 25 -- Agronomy Seminar: "Plant Variety Protection Laws and Other Legislation Influencing Seed Programs of Public Developed Crop Varieties," A-203 P & AS Bldg., 4:00 p.m.
- 27 -- Thanksgiving Holidays Begin After Last Class.
- 29 -- Fort Hill Clemson Club Tip-Off Luncheon, Clemson House, 12 noon.
- 29-30 -- Basketball: IPTAY Invitational Tournament (Clemson, Middle Tennessee, Ole Miss, Pennsylvania), here.

DECEMBER

- 1-13 -- Architecture Exhibition: Student Work, Lee Gallery.
- 2 -- Classes Resume.
- 2 -- Agronomy Lectures and Seminar: "Diagnostic Techniques for Plant Nutrient Needs," A-203 P & AS Bldg., lectures, 9:05 and 11:15 a.m., seminar, 4:00 p.m.
- 4 -- Basketball: Furman, here, 8:00 p.m.

CALENDAR OF CAMPUS EVENTS Continued

DECEMBER

- 5 -- Fort Hill Clemson Club Tip-Off Luncheon, Clemson House, 12 noon.
- 5 -- Woman's Club, "Christmas Around the World," Clemson House, 3:15 p.m.
- 7 -- Basketball: Appalachian State, here, 8:00 p.m.
- 8 -- University Union Sunday Free Flick: Movie Orgy (tentative).
- 9 -- Examinations Begin.
- 14 -- Graduate Record Examination.
- 19 -- Mid-Year Graduation.

JANUARY

- 2 -- Fort Hill Clemson Club Tip-Off Luncheon, Clemson House, 12 noon.
- 4 -- Basketball: Virginia, here, 8:00 p.m.
- 5-31 -- Architecture Exhibition: Dismantling of a Landmark, Lee Gallery.
- 6 -- Orientation, New Students.
- 7 -- Registration, All Students.
- 8 -- Late Registration.
- 9 -- Classes Begin Regular Schedule.
- 9 -- Woman's Club: "Carlyn's Today Show," Clemson House, 9:30 a.m.
- 11 -- Dental Admission Test.
- 11-2/9 -- Architecture Exhibition: SCAC Invitational Exhibition, Lee Gallery.
- 15 -- University Union Fine Arts Film: Smiles of a Summer Night, 8:00 p.m. (tentative).
- 15 -- Last Day For Registration.
- 15 -- Last Day to Add a Subject.
- 16 -- Fort Hill Clemson Club Tip-Off Luncheon, Clemson House, 12 noon.
- 18 -- Basketball: Wake Forest, here, 8:00 p.m.
- 18 -- Graduate Record Examination.

CALENDAR OF CAMPUS EVENTS Continued

JANUARY

- 20 -- French Films: The Lesson and Zero for Conduct, 315 Daniel Hall, 7:30 p.m.
- 21 -- History Film: Sergei Eisenstein's October, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 22 -- Basketball: Maryland, here, 8:00 p.m.
- 23 -- University Union Light Concert: "Lasarium," Tillman Hall Auditorium (tentative).
- 24 -- Concert Series: Atlanta Symphony Orchestra, Littlejohn Coliseum, 8:00 p.m.
- 25 -- Admission Test for Graduate Study in Business.
- 25 -- Rifle Match, Davidson, here.
- 27 -- National Players in Shakespeare's Henry IV, Part I, Tillman Hall Auditorium matinee and evening performances.
- 27 -- German Film: Man Who Walked Through the Wall, 315 Daniel Hall, 7:30 p.m.
- 28 -- Foreign Language Play, Daniel Hall Auditorium, 8:00 p.m.
- 29 -- Basketball: The Citadel, here, 8:00 p.m.
- 31 -- Music Department Chamber Music Series: Clyde Barth, baritone, and Ruth Mock, oboist, in joint recital, Daniel Hall Auditorium, 8:00 p.m.

FEBRUARY

- 1 -- Woman's Club: "Clemson Community Mini Fair," Clemson House, 7:00 p.m.
- 1 -- Basketball: North Carolina, here, 8:00 p.m.
- 6 -- Fort Hill Clemson Club Tip-Off Luncheon, Clemson House, 12 noon.
- 11 -- History Film: Frank Capra's Mr. Deeds Goes To Town, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 11 -- Concert Series: Lenox String Quartet, Tillman Hall Auditorium, 8:00 p.m.
- 12 -- University Union Fine Arts Film: Odd Man Out, Daniel Hall Auditorium, 8:00 p.m. (tentative).
- 15 -- Basketball: Duke, here, 8:00 p.m.
- 17 -- Spanish Film: This Strange Passion, 315 Daniel Hall, 7:30 p.m.
- 19-3/19 -- Architecture Exhibitions: Graphic Work of the Vienna Secession and F. Clark Stewart - Recent Drawings and Prints, Lee Gallery.

CALENDAR OF CAMPUS EVENTS Continued

FEBRUARY

- 20 -- Fort Hill Clemson Club Tip-Off Luncheon, Clemson House, 12 noon.
- 22 -- Basketball: N.C. State, here, 8:00 p.m.
- 25 -- Foreign Language Play, Daniel Hall Auditorium, 8:00 p.m.
- 25 -- History Book Discussion: Carl Degler's Neither Black nor White, 200 Hardin Hall, 7:30 p.m.
- 25-3/2 -- Clemson Players Present: The Skin of Your Teeth, Daniel Hall Auditorium, 8:00 p.m.

MARCH

- 1 -- Basketball: Biscayne, here, 8:00 p.m.
- 2-28 -- Architecture Exhibition: ASLA Awards Traveling Exhibit, Lee Gallery.
- 3 -- Trustee Medal Competition, Daniel Hall Auditorium, 7:30 p.m.
- 6 -- Woman's Club: "Remember When," Clemson House, 3:15 p.m.
- 6,7,8 -- Basketball: ACC Tournament, Greensboro.
- 8 -- Third Annual Tiger Drill Meet, Littlejohn Coliseum, 8:00 a.m. - 4:30 p.m.
- 10 -- Russian Film: And Quiet Flows the Don, 315 Daniel Hall Auditorium, 7:30 p.m.
- 11 -- Music Department Chamber Music Series: A solo recital by pianist Lillian Harder, Daniel Hall Auditorium, 8:00 p.m.
- 11 -- History Film: John Ford's The Informer, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 12 -- University Union Fine Arts Film: The Bicycle Thief, Daniel Hall Auditorium, 8:00 p.m. (tentative).
- 14 -- Spring Holidays Begin After Last Class.
- 24 -- Classes Resume.
- 25 -- 1975 Continuing Education.
- 28 -- AFROTC Dining-In.
- 31 -- French Film: Waiting for Godot, 315 Daniel Hall, 7:30 p.m.

CALENDAR OF CAMPUS EVENTS Continued

APRIL

- 1 -- 1975 Continuing Education.
- 1 -- History Film: William Wyler's The Best Years Of Our Lives, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 3 -- Woman's Club: "Luncheon and Fashion Show," Clemson House, 12:30 p.m.
- 4 -- Military Banquet, Harcombe Dining Hall, 7:00 p.m.
- 4 -- Military Ball, National Guard Armory, 9:00 p.m.
- 5 -- Livestock Judging: "Future Farmers of America State Contest," brick barn across S.C. 76 from Tri-County TEC, 11:45 a.m. - 3:30 p.m.
- 5 -- Agricultural Mechanics Contest: "Future Farmers of America State Contest," McAdams Hall, 11:45 a.m. - 4:30 p.m.
- 6-5/2 -- Architecture Exhibitions: Herb Jackson - Recent Paintings and Graphics, Suzann Davis-Recent Tapestries, Phil and Sharon Whitley-Sculpture, Lee Gallery.
- 8 -- Clemson University Concert Band Tour Concert, Tillman Hall Auditorium, 8:00 p.m.
- 8-13 -- Clemson Players present a modern, foreign play as part of Dionysia 1975, Daniel Hall Auditorium, 8:00 p.m.
- 9 -- Concert Series: "Feux Follets," the Canadian National Dance Company, Littlejohn Coliseum, 8:00 p.m.
- 9 -- Military Honors and Awards, Bowman Field, 4:00 p.m.
- 9 -- Honors and Awards Day, classes suspended at 12 noon.
- 11-12 -- Dionysia '75.
- 12 -- Graduate School Foreign Language Test.
- 12 -- Third Annual JROTC Invitational Rifle Match, here.
- 14-18 -- Preregistration.
- 14 -- Spanish Film: Summerskin, 315 Daniel Hall, 7:30 p.m.
- 15 -- History Film: Elia Kazan's On The Waterfront, 200 Hardin Hall, 2:30 and 7:30 p.m.
- 15 -- 1975 Continuing Education.

CALENDAR OF CAMPUS EVENTS Continued

APRIL

- 16 -- University Union Fine Arts Film: The Confessions of Felix Krull, Daniel Hall Auditorium, 8:00 p.m.
- 22 -- 1975 Continuing Education.
- 24 -- Clemson University Concert Band "Pops" Concert, Tillman Hall Auditorium, 8:00 p.m.
- 26-30 -- Symposium: "Seventh International Biomaterials Symposium," technical sessions in Daniel Hall.
- 26 -- Dental Admission Test.
- 26 -- Graduate Record Examination.
- 28 -- Examinations Begin.
- 29 -- 1975 Continuing Education.

MAY

- 4-30 -- Architecture Exhibition: Dan Brown-MFA Thesis Exhibit, Lee Gallery.
- 9 -- Commencement.
- 19 -- Registration.
- 20 -- Classes Begin.
- 19-23 -- 1975 College Week For Senior Citizens, first session.
- 26-30 -- 1975 College Week For Senior Citizens, second session.

JUNE

- 3-6 -- State Convention: "Forty-Eighth Annual Convention of the S.C. Association of Future Farmers of America," Daniel Hall Auditorium.
- 12 -- Alumni President's Reception for National Council and Clemson Foundation, Alumni Center.
- 13 -- Reunion '75 registration begins, East Campus.
- 13 -- Class Night Dinner, all classes, Reunion '75.
- 14 -- Reunion '75 continues. General Assembly of National Alumni Association, Daniel Hall Theater, 2:30 p.m.
- 14 -- Reunion '75 Alumni Awards Banquet, Harcombe Commons, 6:30 p.m.

CALENDAR OF CAMPUS EVENTS Continued

JUNE

15 -- Reunion '75 Adjournment.

21 -- Graduate Record Examination.

25-26 -- Examinations.

30 -- Orientation, New Students.

30 -- Architecture Exhibition: 1975 Thesis Exhibit.

JULY

1 -- Registration.

1-30 -- 1975 Thesis Exhibition continues, Lee Gallery.

2 -- Classes Begin.

AUGUST

1-8 -- 1975 Thesis Exhibition continues, Lee Gallery.

6-7 -- Examinations.

9 -- Graduation.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Vol. 14 No.2

September 1, 1974

AUG 30 1974

Clemson Awards 567 Degrees

Clemson University awarded 567 degrees, including 315 advanced degrees, at summer graduation exercises Aug.10.

Clemson President Robert C. Edwards conferred 248 bachelor's, 4 associate in arts, 299 master's and 16 doctoral degrees.

Including graduation ceremonies last December and May, the university awarded 2,043 degrees during academic year 1973-74, the first time the institution has exceeded 2,000 degrees in an academic year.

Electrical Engineering Awards Established

Clemson University will have four Rhodes Scholars--and one Rhodes professor--on campus each year beginning in 1975-76.

The four scholars won't be of the British variety but will be recipients of Samuel R. Rhodes Electrical Engineering Awards, which have been established in honor of the late Smauel R. Rhodes, former head of Clemson's electrical and computer engineering department.

An outstanding teacher in the department will receive the Samuel R. Rhodes Professorship of Electrical Engineering, which carries a \$2,500 stipend. The student awards, worth \$100 to \$150, will be given to a member of each of Clemson's freshman, sophomore, junior and senior classes.

The professorship and the awards are made possible by a \$50,000 fund established by a \$48,654 gift from Rhodes' wife, the late Mrs. Emme B. Rhodes, and other donations to Clemson in the professor's honor.

Campus Speed Limits To Be Enforced by Radar

The use of radar to determine traffic speed violations on the Clemson University campus has been approved effective immediately by the University administration.

Strict enforcement of a speed limit of 25 mph is particularly needed in the area where pedestrian crosswalks are located on that part of S.C. Highway 93 which comes through the campus, says E. H. McCarter, chairman of the University's traffic and parking committee.

Highway 93 passes between the Clemson House and Sikes Hall and goes by the old post office building. The crosswalks are not for students and other campus pedestrians who must cross the road to get downtown or the Clemson House, where some 240 coeds are housed.

Other posted speed limits on campus roads will be enforced by the new radar equipment.

Dr. Reel Elected National Pi Kappa Alpha President

Dr. Jerome V. Reel, Jr., associate professor of history at Clemson University, is the new national president of Pi Kappa Alpha fraternity.

He was elected to the two-year term during the national convention held at Vail, Colo., earlier this month. Reel will lead the fraternity during a reorganization process approved by students at the convention.

Reel, a New Orleans native, was initiated into Pi Kappa Alpha at Tulane University. In 1972, he was elected national vice president.

At Clemson, Reel has served as advisor to Eta Alpha chapter since 1970. Eta Alpha has twice been chosen the top chapter in the country, and was runner-up this year.

Dates Announced For National And Restricted Tests

Dr. John F. Mulkeen (Director of the Counseling Center) announces the 1974-75 schedule of dates for national and restricted tests to be administered by the Counseling Center. He advises students to apply at least five weeks prior to the scheduled test date. Applications for all tests are available at the Counseling Center, Room 200, Tillman Hall.

Admission Test for Graduate Study in Business: Nov. 2, 1974; Jan. 25, 1975.

Dental Aptitude Test: Oct. 12, 1974; April 26, 1975.

Graduate Record Examination: Oct. 26, 1974; Dec. 14, 1974;
Jan. 18, 1975; April 26, 1975;
June 21, 1975.

Graduate School Foreign Language Test: Oct. 12, 1974; April 12, 1975.

Medical College Admission Test: Oct. 5, 1974; May, 1975
(Day to be announced).

Optometry Pre-Admission Test: Nov. 2, 1974. (If 5 persons request testing at C. U.)

The following special tests are given by appointment and for a fee: American Institute of Certified Public Accountants, Aptitude and Achievement Test; College Level Examination Program (English, Chemistry, Economics, Psychology); Doppelt Mathematical Reasoning Test; Miller Analogies Test; Minnesota-Engineering Analogies Test; and specific tests for students transferring to other colleges and universities.

FACULTY PROMOTIONS ANNOUNCED FOR 1974-75

--Sixty-seven members of the teaching, research and extension faculties were promoted in rank for the year 1974-75. Of these, twenty-one associate professors became professors; thirty-five assistant professors became associate professors, eleven instructors became assistant professors.

COLLEGE OF AGRICULTURAL SCIENCES

Promoted to Professor:

Joseph R. Haun
Kendrick A. Holleman
Clarence E. Hood
John W. Hubbard
Walter E. Johnston
John B. Kissam
Clyde L. Parks

Promoted to Associate Professor:

Ortus W. Barnett, Jr.
Don A. Benton
Elizabeth B. Berry
Lewis F. Cato
Ralph K. DeHaven
Nelda K. Howell
Joseph J. Jen
Joe K. Jones
Calvin B. Reeves
Georgia T. Roberson
Legrand M. Sparks
John F. Welter
Eldon I. Zehr

Promoted to Assistant Professor:

William C. Clinkscales
Charles V. Privette

COLLEGE OF ARCHITECTURE

Promoted to Professor:

Ralph E. Knowland
Peter R. Lee

Promoted to Associate Professor:

Donald L. Collins

Promoted to Assistant Professor:

Clarence L. Addison
Robert L. Chartier

FACULTY PROMOTIONS ANNOUNCED FOR 1974-75 (Continued)

COLLEGE OF EDUCATION

Promoted to Professor:

James E. Matthews
William W. Pennscott

Promoted to Associate Professor:

Ida C. Briscoe
Elizabeth B. Galloway
Edward F. Olive
Betty P. Watkins

Promoted to Assistant Professor:

Teryle W. Carpenter

COLLEGE OF ENGINEERING:

Promoted to Professor:

Thomas L. Drake
Charles C. Fain

Promoted to Associate Professor:

John N. Beard, Jr.
Marvin W. Dixon
John N. Gowdy
Jerome J. Klawitter
E. Harry Law
Stephen S. Melsheimer
Freddy L. Roberts
Barry W. Sauer

COLLEGE OF FOREST AND RECREATION RESOURCES

Promoted to Professor:

John L. Stevenson
Thomas E. Wooten

Promoted to Associate Professor:

H. Jesse Grove
George D. Kessler

FACULTY PROMOTIONS ANNOUNCED FOR 1974-75 (Continued)

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Promoted to Professor:

Robert H. Barker

Promoted to Associate Professor:

Holley H. Ulbrich
E. Earl Burch

Promoted to Assistant Professor:

Rodney H. Mabry

COLLEGE OF LIBERAL ARTS

Promoted to Associate Professor:

Hallman B. Bryant
Ronald J. Knapp
Victor A. Rudowski

Promoted to Assistant Professor:

Alan D. McClare

COLLEGE OF NURSING

Promoted to Assistant Professor:

Mary Ann Kelly
Mary Ann Teklits
Claudia B. Hubbard
Cynthia Leahy

COLLEGE OF PHYSICAL, MATHEMATICAL, AND BIOLOGICAL SCIENCES

Promoted to Professor:

Khursheed Alam
Paul K. Birkhead
Malcolm J. B. Paynter
Thomas G. Proctor
Averett S. Tombes

Promoted to Associate Professor:

Robert E. Fennell
John C. Peck

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 11, 1974

President Dillon called the meeting to order at 4:15 p.m. He called attention to some proposed changes in the May 14 minutes. After these changes were made, the minutes were approved as modified.

Committee Reports

Welfare Committee - J. E. Matthews reported in the absence of W. Baron, Committee Chairman. He presented a recommendation from the committee relative to the formation of an ad hoc committee on retirement programs.

There followed much discussion on the differences between resolutions and recommendations and the Senate's position regarding the need for action in latter case.

A motion was made by Professor Roberts to delete the last paragraph from the recommendation. It was seconded and passed unanimously.

Policy Committee - C. W. Roberts, no report.

Research Committee - G. D. O'Dell, no report.

Admissions and Scholarship Committee - L. T. Fitch, no report.

President's Report

President Dillon reported on the Extension Council meeting held May 26. The planning committee for the Continuing Education Center submitted a report on the Center requirements to President Edwards, who then appointed a building committee. Dean Willis will serve on this committee. Vice-President Wilson initiated procedures for securing architectural bids. A selection committee has recommended the architects to the President.

The Undergraduate Council met on May 3. At that meeting a class attendance policy was approved. There are slight differences between the Senate version, Resolution FS 74-3-1, Proposed Class Attendance Policy which passed 15 to 14 by the Senate. The major difference between the two proposed policies is in paragraph two, line one, which deals with the instructors' responsibilities for informing the class of the attendance policy for his or her class.

Many senators voiced concern over the undergraduate council version. The Senate has already stated its position in the resolution passed last year. The Policy Committee was asked to look again at both proposals. Dean Victor Hurst will make the final approval on an attendance policy.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 11, 1974 (Continued)

President Dillon attended the May 16 meeting of the Traffic and Parking Committee. He called on Professor R. L. Cross, member of this committee, to discuss the meeting. Professor Cross reported that the traffic barriers are being retained but that parking between the barriers is now permitted. Campus planner Eflin is looking into the possibility of making changes to these streets. Cross also reported that since the Clemson House is to be used for more extensive housing of students, Chief Weeden is being asked to contact the State Highway Department to see if the speed limit on Highway 93 between campus and the Clemson House could be lowered to 25 miles per hour.

Cross reported that during the last year the traffic and parking fines doubled. There is a feeling that enforcement is still a problem. More men are needed to handle this problem.

President Dillon reported that on May 28 no-zone parking and parking between barriers went into effect.

Following the report from the Traffic and Parking Committee, Professor O. J. Jacobus read to the Senate a 1973 report on abandoning or closing streets, roads, or highways in South Carolina. He stated that he is not aware of any court order to close streets in Clemson.

Chapter 5.1 - Abandoning or Closing Streets, Roads or Highways

Section 33-521. Petition and notice thereof. Any interested person, the State or any of its political subdivisions or agencies may petition a court of competent jurisdiction to abandon or close any street, road or highway whether opened or not. Prior to filing the petition, notice of intention to file shall be published once a week for three consecutive weeks in a newspaper published in the county where such street, road or highway is situated. Notice shall also be sent by mail requiring a return receipt to the last known address of all abutting property owners whose property would be affected by any such change. (1962) (52) (2183).

Section 33-522. Court to make determination. If the court shall determine that it is to be the best interest of all concerned that such street, road or highway be abandoned or closed, the court shall then determine in whom the title thereto shall be vested and issue an appropriate order. (1962) (52) (2183).

President Dillon reported that on May 27, President Edwards made several appointments to the Athletic Council effective July 1, 1974:

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 11, 1974 (Continued)

J. V. Reel, Secretary, reappointed 3 years
 Corinne Sawyer, appointed 3 years
 R. C. Harshman, replace R. W. Moorman, end June 30, 1976
 Ernest Rogers, 1 year
 Dean K. N. Vickery, Chairman
 C. R. Dillon, representing Senate
 Continuing members, J. V. Brawley, T. D. Efland

The Planning Council met on May 21. President Dillon reported on the plans for the Faculty-Staff-Student Recreation Area which will include a marina, floating dock, grills and nature trails. Local funds are being used.

President Dillon mentioned the parking area in front of Long Hall. Eighty-five new spaces will be gained while over 100 will be lost behind Long Hall.

President Dillon asked the Planning Council to check into the availability of garden plots for faculty and students. Water would need to be available.

The Faculty Senate Advisory Council met on May 28. The following committees were approved:

Faculty Work Load

Paul Holmes, Chairman	A. H. Holt
T. R. Adkins, Jr.	W. E. West
B. L. Edge	E. L. Powers
K. E. Carpenter	

Faculty Evaluation of Academic Administrators

W. E. West, Chairman	Eugene Park
R. D. Shannon	M. W. Jutras
E. B. Rogers	W. Baron
H. D. Adams	

Continuing Education Center

J. E. Matthews, Chairman
 V. Carmack
 J. C. Mullins
 R. D. Shannon

The advisory committee approved the discharge of the motor pool committee.

H. J. Grove was appointed to the Traffic and Parking Committee and the Landscape and Site Development Committee. This appointment was approved by Dean Hurst on May 31.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 11, 1974 (Continued)

On May 31, President Dillon met with the Welfare Committee and all 12-month Senators. The leave policy was discussed and a new plan was proposed. The main element has the right to accumulate 45 days leave. The proposed policy was presented to Dean Hurst on June 3.

On June 10, President Dillon met with Dean Hurst to discuss the new student handbook. Revisions to the Faculty Manual were also discussed. It was decided that any revisions should be forwarded to Dean Hurst by November or December.

Old Business

It was called to everyone's attention that an error was made in the date for the August Senate meeting. The correct date should be August 20 instead of August 13.

President Dillon will not be present at the July meeting. Vice-President Carpenter will chair the meeting.

New Business

Professor Teklits asked about the Senate's role in relation to other councils. President Dillon urged all Senators to read the constitution and by-laws of the Senate to better understand its function. One role of the Senate is to form academic policies and to represent the entire faculty in these matters.

The Policy Committee was asked by President Dillon to study the question of whether or not a senator may continue to serve if he or she has been made acting head of a department in the absence of a head.

There being no further business, the meeting adjourned at 6:05 p.m.

Respectfully submitted,

Veronica D. Carmack
Acting Secretary

Members absent: T. R. Adkins, Jr., D. O. Ezell, F. H. Hedden, W. Baron, J. G. Goree, E. L. Powers, A. L. Recoulley, P. T. Holmes.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JUNE 11, 1974 (Continued)

Attachment #1

RECOMMENDATION ON THE FORMATION OF AN AD HOC FACULTY SENATE
COMMITTEE ON RETIREMENT PROGRAMS (FS-74-6-1-Rcm.):

The Welfare Committee of the Faculty Senate recommends that the Faculty Senate request the President of the Senate to form an ad hoc committee on retirement programs. The objective of said committee shall be:

1. To review the present South Carolina State Employees Retirement System and to work with the administrators of the State Retirement System for the further improvement of said system.
2. To investigate the need for an optional alternative to the State Retirement Program for university faculty and to work with the administrators of the South Carolina Retirement System and other interested parties to implement said optional retirement program.

The Welfare Committee recommends that the President of the Senate be responsible for the appointment of a chairman and five additional faculty members to said ad hoc committee. It is recommended that at least two members of the committee be members of the Faculty Senate.

Senate action: Accepted unanimously, June 11, 1974.

GRADUATE COUNCIL MINUTES, MAY 8, 1974

The Graduate Council met at 10 A.M. on Wednesday, May 8, 1974 in the Conference Room of E-103 Martin Hall. Dean Schwartz called the meeting to order. Those present were: Dr. Brown, Dr. Wooten (alternate for Dr. Gahan), Dr. Mandel, Dr. Camper, Dr. Freeze, Professor Lee (alternate for Professor Means), Dr. Gauthreaux, Dr. Dysart, Dr. Macaulay, Mr. Preston Brown, and Mr. James Kelley.

Dean Schwartz expressed appreciation to the student representatives, Messrs. Brown and Kelley, for serving on the Graduate Council.

The minutes of the April 5, 1974 meeting were approved as distributed.

Lists with candidates for Masters and PhD degrees were distributed with marked corrections. A motion was made, seconded and passed approving these students to receive degrees at the May 10, 1974 commencement.

A request for the approval of a non thesis option in the Master of Science degree in Physics was discussed. A motion was made, seconded and passed to approve this request, a copy of which is attached.

The following new courses were approved:

COLLEGE OF EDUCATION

In Ed 618 - Technological Concepts in Manufacturing

COLLEGE OF LIBERAL ARTS

Pol Sc 642 - Political Parties and Politics

COLLEGE OF PHYSICAL, MATHEMATICAL, AND BIOLOGICAL SCIENCES

Phys 723 - Weather Science for Science Teachers

Phys 890 - Directed Activities in Applied Physics

Dr. Dysart distributed a memorandum relative to graduate credit for E&CE 669, Computer Applications for nonengineers. A motion was made to reconsider this course for approval which was previously tabled. An amendment to the above motion was made to consider this course at the next meeting. This amendment was seconded and approved with three dissenting votes.

Dr. Camper, chairman of the subcommittee on the residency requirement at the doctoral level, commented on the committee's proposed recommendation after which discussion followed. A motion was made, seconded and approved to adopt the requirement with one minor change, a copy of which is attached.

A motion was made, seconded, and passed to adjourn.

THE CLEMSON CHORALE SOCIETY

The Clemson Chorale Society will be having an organizational rehearsal for the 1974-75 season on Sept. 5, at 7:30 p.m. in 217 Daniel Hall. Anyone interested in singing with us this year should make plans to attend this rehearsal or contact the Music Department, 617 Strode Tower or call 656-3043 for additional information.

CHEMICAL ENGINEERING

Stephen S. Melsheimer (Assoc Prof) and Robert A. Adler (Grad Stu) presented a paper entitled, "The Characteristic Averaging Technique for Dispersed Flow Equations," at the 78th National AIChE Meeting, Salt Lake City, Utah, on Aug. 19. Dr. Melsheimer also served as invited discussor for another paper presented at the meeting.

CIVIL ENGINEERING

Herbert W. Busching (Assoc Prof and Hd) and Ruby M. Craven (Prof, Home Econ) have received approval from the South Carolina State Housing Authority to begin work on their contract entitled, "Basic Homes Program, Phase 2 - Counseling and Prototype Construction." This project will provide professional and supporting staff commitments to plan and execute counseling and prototype construction activities. The project will last until June 30, 1976 and has an approved budget of \$46,096.

Herbert W. Busching attended the Board of Directors meeting of the American Association of Road Builders in White Sulphur Springs, West Va. on Aug. 22-25. Dr. Busching is currently serving as Vice-President of the Educational Division of the American Road Builders Association.

Albert G. Law (Assoc Prof) and Paul B. Zielinski (Assoc Prof) attended the annual ASCE Hydraulics Specialty Conference at the University of Tennessee, Knoxville on July 31 and Aug. 1.

William Baron (Assoc Prof) attended and participated as a moderator and a member of the organizing committee of an Engineering Foundation Conference entitled, "Safety of Small Dams," in Hennicker, N.H.

J. Edwin Clark (Assoc Prof) and William Baron were co-directors of a Building Inspection Short Course held at Clemson University on Aug. 13-15 with 125 participants in attendance. The course will be repeated on Oct. 15-17 in Charleston and Dec. 3-5 in Columbia. The course is sponsored by the Dept. of Civil Engineering and the South Carolina State Personnel Division.

CIVIL ENGINEERING (Continued)

B. L. Edge (Assoc Prof) has been appointed as a member of the Executive Committee of the Waterways, Harbors, and Coastal Engineering Division of the American Society of Civil Engineers. His four-year term will begin in October of this year.

B. L. Edge is the co-chairman of the International Symposium on Ocean Wave Measurement and Analysis which is sponsored by the American Society of Civil Engineers, the Department of Public Works, Canada, and the U. S. Army Corps of Engineers. The Symposium will provide a forum for researchers, design engineers, data managers, and equipment developers to discuss capabilities, experiences, new developments and needs. WAVES 74 will be held at Braniff Place in New Orleans on Sept. 9-11.

Parviz F. Rad (Asst Prof) and Herbert W. Busching have organized and will conduct a two-day short course on Housing Inspection. This short course is structured for those involved in design construction and inspection of housing units. The sponsors of this course are the Housing Institute and the South Carolina Personnel Division. This course will be offered on Sept. 16-17.

CONTINUING ENGINEERING EDUCATION

Twelve graduate level and four undergraduate level Engineering courses have been scheduled during the fall semester 1974-75 at times and locations convenient to the practicing engineer by the College of Engineering. Participating departments are Chemical Engineering, Civil Engineering, Electrical and Computer Engineering, Mechanical Engineering and the Materials Engineering Program of the Division of Interdisciplinary Studies. These courses are receiving registration from practicing engineers who are interested in continuing their educational programs through evening study. Registration for these courses is administered through Continuing Engineering Education.

The College of Engineering will co-sponsor with Piedmont Chapter of the South Carolina Society of Professional Engineers a series of review courses which are designed to assist the practicing engineer in preparation for standing the Engineering Fundamentals Examination as a first step toward becoming a registered engineer. These classes will be taught in Greenville beginning Aug. 27 and continuing through Oct. 31. The students will stand the examination on this material approximately one week after the conclusion of the course. This series of courses will include Physics, taught by C. W. Ulbrich (Assoc Prof, Phys); Chemistry, taught by J. F. Allen (Assoc Prof, Chem); Engineering Mathematics, taught by Eugene Park (Assoc Prof, Math Sci); Electrical Theory, taught by Walter L. Ball (Assoc Prof, E&CE); Engineering Thermodynamics, taught by W. G. Hudson (Assoc Prof, Mech Engr); Statics, taught by N. R. Bauld (Prof, Mech Engr and Engr Mech); Dynamics, taught by M. K. Richardson (Assoc Prof, Mech Engr);

CONTINUING ENGINEERING EDUCATION (Continued)

Mechanics of Materials, taught by J. G. Goree (Assoc Prof, Mech Engr and Engr Mech); Fluid Mechanics, taught by W. E. Castro (Prof, Mech Engr and Engr Mech); Engineering Economic Analysis, taught by Jack C. McCormac (Assoc Prof, CE).

A short course entitled, "Biomaterials for Orthopedic Surgeons" is being taught at Richland Memorial Hospital in Columbia. The course meets on the first, second and third Wednesday evenings of each month from June through Nov. The course will cover the current state of the art and the most recent research developments concerning Biomaterials which are used by Orthopedic surgeons. The course is being taught by A. M. Weinstein (Asst Prof, Bioengr and Mat Engr). The course is administered through Continuing Engineering Education.

A short course entitled, "Industrial Energy Conservation" will be held at Clemson University on Sept. 18. The course is co-sponsored by the College of Engineering and the South Carolina Energy Management Council Office of the Governor. The course is the third in a series of Energy Conservation Programs. The first of these was presented in Dec. 1973, and was attended by over 300 Building Designers and Architects. The second program was presented in March 1974 and was attended by over 200 Engineers who were interested in Industrial Energy Conservation. The program in Sept. is a continuation of the program directed at Industrial Energy Conservation and will take a closer look at long range Energy Conservation and Needs. Clemson University faculty participating in the program will include J. C. Hester (Assoc Dean, College of Engr); J. C. Mullins (Assoc Prof, Chem Engr), course co-chairman; and W. B. Reuland (Assoc Prof, E&CE), course co-chairman; and H. Vernon Poe (Assoc Prof, E&CE). The course is administered through Continuing Engineering Education.

ELECTRICAL AND COMPUTER ENGINEERING

J. W. Lathrop (Prof) presented a paper, "University Microelectronic Laboratories in the United States," at the 1974 International Conference on Frontiers in Education, London, England, July 17.

ELEMENTARY AND SECONDARY EDUCATION

W. Owens Corder (Assoc Prof) served as guest consultant for the Summer Leadership Institute for Elementary and Middle School Principals in Columbia on July 29 - Aug. 2.

FOOD SCIENCE

M. G. Johnson (Asst Prof) was appointed editor of the "Food Microbiology Newsletter" for the Food Microbiology Division of the Institute of Food Technologists at the annual meeting, May 12-15, in New Orleans. The primary purpose of the newsletter is to keep division members aware of new developments and techniques in food microbiology prior to journal publications by distributing to members pre-print abstracts furnished by the authors.

J. J. Jen (Assoc Prof) attended the annual meeting of the Institute of Food Technologists at New Orleans, May 12-15, and served as vice-chairman of the plant biochemistry section and presented two technical papers entitled, "Spectral Quality of Light and Pigment Systems of Ripening Tomatoes," and "Pectic Enzymes in Ripening Peaches Infected with Monilinia fructicola."

HISTORY

John LeBourgeois (Asst Prof) published "Symonds Material in the Bodleian" in Notes and Queries, June 1974.

INDUSTRIAL EDUCATION

A. F. Newton (Prof and Hd) gave the main address at the Thursday morning session of the Trade and Industrial Education section of the annual Vocational Teachers Conference held at Winthrop College, Aug. 7-9. His topic was, "Planning Vocational Programs to Meet the Humanistic and Industrial Needs of the Community." Dr. Newton was also chairman of the panel on Questions and Answers concerning "T & I Certification, Old and New" at the Friday morning session. At the Friday afternoon session, Dr. Newton chaired the group meeting on D.O. - Cooperative.

F. A. Bosdell (Asst Prof) was chairman of the group meeting on Textiles at the Trade and Industrial Education Section of the annual Vocational Teachers Conference held at Winthrop College on Aug. 9.

INTERDISCIPLINARY STUDIES

On Aug. 2, four members of the Bioengineering faculty presented papers in Columbia at the Sixth Annual Meeting of the Hip Society of the American Academy of Orthopedic Surgery. The presentations were: "Biomaterials and Biomechanics in Hip Reconstruction," F. W. Cooke (Assoc Prof and Hd); "Mechanical Strength of Cancellous Bone," J. J. Klawitter (Assoc Prof); "Properties and Use of Polymethyl Methacrylate," A. M. Weinstein (Asst Prof); "Methods of Prosthetic Fixation to Bone," A. M. Weinstein and B. W. Sauer (Assoc Prof). E. M. Lunceford (M.D. and Dir of the Moore Clinic in Columbia and Clemson Adju Prof of Bioengr) is the 1974 President of the Hip Society.

H. Scott (Assoc Prof) is an author of a paper in Biomaterials, Medical Devices and Artificial Organs 1, 681 (1973) entitled, "Construction and Properties of Hydrogel-Graft-Coated Copper-Bearing Intrauterine Devices for Rabbits."

M. Spector (Asst Prof) presented papers entitled, "Ion Beam Etching of Cellular Material" and "Lattice Images of Biological and Synthetic Apatites," at the Electron Microscopy Society of America Meeting in St. Louis, Mo., Aug. 12-15.

MECHANICAL ENGINEERING

Eugene Harrison (Draper Prof) has been awarded a \$16,000 contract by Celanese Plastics Company for the development of a control system for a die lip actuator which is used in the production of plastic film. The contract period is Aug. 1, 1974 through May 15, 1975 and reflects an extension of a previous contract Dr. Harrison conducted for Celanese which resulted in a significant improvement in their extrusion process.

ROBERT MULDROW COOPER LIBRARY

Jane Harris (Lib Tech Asst) and Charles W. Triche III (Ref Lib) have prepared an index entitled, "South Carolina Agricultural Experiment Station Publications: An Index 1888 - 1973." This publication has been issued by the South Carolina Experiment Station, Clemson University. There has long been a need for an accurate, comprehensive, yet concise index to these publications. It will be kept up-to-date by an annual supplement.

Charles W. Triche III has prepared, "A Library Guide to the Science, Technology and Agriculture Division. Clemson University." The guide contains information about the classification system, acquisitions, interlibrary loans and other services, and includes a bibliography of important dictionaries, directories, encyclopedias and handbooks in each of the major subject classifications.

VOCATIONAL EDUCATION MEDIA CENTER

Arthur K. Jensen (Prof and Dir) has been recently named South Carolina curriculum contact representative to the National Network of Curriculum Coordination in Vo-Tech Education.

Arthur K. Jensen has been named to the Advisory Council of the American Vocational Association.

ADDITIONAL NEW FACULTY AND STAFF, 1974-75College of Agricultural Sciences

King, Grady A., Visiting Assistant Professor, Agricultural Economics and Rural Sociology; B.S., M.S., Clemson University; Ph.D., University of Georgia; Married, one child; 252 Rock Creek Road

Smith, David C., Instructor in Entomology and Economic Zoology; B.S., M.S., Clemson University; married; County Extension Office, Beaufort; 1511 Battery Creek Road, Beaufort, 29902

Wynn, Eddie D., Assistant Professor, Agricultural Economics and Rural Sociology; B.A., Howard University; M.A., Clemson University; Married, two children

College of Architecture

Ersenkal, Olgun, Assistant Professor of Architecture; M.U.P., New York University; Single; 8-B Daniel Drive

Hudson, Mark, Instructor of Architecture; M.F.A., Clemson University; Married; 210 North Clemson Avenue

Mulholland, Janet, Instructor of Art and Architectural History; M.A., University of Michigan

College of Education

Alexander, Nathaniel C., Visiting Assistant Professor, Industrial Education; B.S., Clemson University; M.Ed., Ed.D., North Carolina State University; Married, one child; Route 2, Bayshore, Seneca

College of Forest and Recreation Resources

Merrell, Edward A., Visiting Instructor, Recreation and Park Administration; B.A., University of South Alabama; M.RPA, Clemson University; Married, 109 Brookwood

College of Industrial Management and Textile Science

Bessinger, Raymond C., Visiting Instructor, Accounting and Finance; B.B.A., Georgia Southern; M.B.A., Georgia State University; Single

College of Liberal Arts

Gilmore, Sylvia L., Visiting Instructor, English; A.B., M.A., University of Alabama; Single

Turner, Joe M., Assistant Professor, Sociology; B.A., M.A., Western Kentucky University; Ph.D., Florida State University; Married, three children

ADDITIONAL NEW FACULTY AND STAFF, 1974-75 (Continued)

College of Nursing

Gooding, Allie E., Visiting Instructor, Associate Degree Program; B.S.N., State University of New York at Buffalo

Sellers, Patricia A., Instructor, Associate Degree Program; B.S.N., College of St. Scholastica; M.S.N., University of South Carolina

College of Physical, Mathematical, and Biological Sciences

Crammer, John R., Instructor in Mathematical Sciences; B.S., Ph.D., Clemson University; Single

Fitzpatrick, J. Michael, Visiting Instructor, Chemistry and Geology; B.S., University of North Carolina at Chapel Hill; Ph.D., Florida State University; Married

Miller, Sharon B., Visiting Assistant Professor of Botany; B.A., Winthrop College; M.S., Clemson University; Ph.D., University of Georgia; Married

Powers, M. Walton, Instructor in Mathematical Sciences; B.S., Athens College; M.S., Clemson University; Married, two children

Office of Student Affairs

Hardin, Robin, Union Program Coordinator, Student Affairs; B.S., Clemson University; Single

CALENDAR OF CAMPUS EVENTS

- 1-13 -- Architecture Exhibition: Robert Church Memorial Exhibit, a retrospective photographic exhibit highlighting the career of one of America's leading architects. Organized by the University of Tennessee's School of Architecture to travel throughout the South. Rudolph Lee Gallery, College of Architecture. Gallery open 9-4:30 p.m. weekdays.
- 1 -- University Union Sunday Free Flick: The Fly. 8:00 p.m., Daniel Auditorium, University I.D. required, free.
- 2 -- French Film: Purple Noon. Sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 2 -- Architectural Lecture: "Industrial Design," with James Stockman, Industrial Designer, Detroit Michigan. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 3 -- History Film: Nicholas Ray's Rebel Without A Cause. Sponsored by the History Club, discussion led by Dr. R.L. Saunders. 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 5 -- Woman's Club: "Highlights of 1973-74, Previews of 1974-75." 3:15 p.m., Clemson House.
- 8 -- University Union Sunday Free Flick: Phantom of the Opera. 8:00 p.m., Daniel Auditorium, University I.D. required, free.
- 9 -- Intramurals: Cross Country, entries close Sept. 13. For further information, contact the Intramural Sport Office, 656-2116.
- 9 -- Architectural Lecture: "Architecture of Interiors," with LaFayette Beaman, AIA, architect, Atlanta, Georgia. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 11 -- Fort Hill Clemson Club: "Shrimp & Sip," 6:00 p.m., Wilson's Landing, open to the public, tickets (\$5) may be purchased at the Alumni Center, or Jervey Athletic Center.
- 12 -- Chamber Music Series: An Evening with Gilbert and Sullivan featuring Doris Hill, Emmalyn Frye, Robert Hill and John Butler. Sponsored by the Department of Music. 8:00 p.m., Daniel Auditorium, open to the public, admission free.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 3

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

September 15, 1974

Five Sea Grants Awarded to Clemson

Five grants totaling \$116,790 have been awarded to Clemson University by the S.C. Sea Grant Program for studies of the state's oyster industry, beach erosion, methods for raising freshwater shrimp, and the labor force for the fisheries industry.

Most of the Clemson projects are cooperative efforts with the S.C. Division of Marine Resources, Medical University of South Carolina, University of South Carolina or the College of Charleston. S.C. Sea Grants to all state agencies total \$370,000.

The grant program supports research, education and management programs to increase profit and job opportunities in South Carolina's marine resources industries while maintaining environmental quality. The program is partially funded by the office of Sea Grant National Oceanic and Atmospheric Administration, a branch of the U.S. Department of Commerce.

New Head of Physics and Astronomy Named

Clemson's Department of Physics and Astronomy has named John P. McKelvey head of the department. Dr. McKelvey, of Ellwood City, Pa., was formerly assistant dean of the College of Science of Pennsylvania State University from which he received his masters and undergraduate degrees. He received his doctorate from the University of Pittsburgh in 1957. He is the author of two major books and 24 papers.

Clemson Announces New Dining Hall Policy

Clemson University announced that effective Sept. 12 its student dining halls will restrict meal service to Clemson students and their guests, university-sponsored groups, and to faculty and staff members during their working hours.

The action was taken to improve dining services for the students, and to meet the needs of a student body that has grown enormously over the past five years.

Clemson has two major student dining facilities, Schilletter Hall on east campus and Harcombe Hall on west campus. Notices concerning the policy will be posted at the entrance to the halls.

Clemson House Helps Alleviate Critical Student Housing Shortage

To help alleviate a critical student housing shortage on the Clemson campus, the Clemson House has been given a major new role by the University's Board of Trustees.

President Robert C. Edwards said August 22 the University moved to implement policy established last November by the trustees to meet the housing problem.

The board decided then that the long-term priority use for the Clemson House would be for student occupancy.

Rooms not occupied by permanent hotel residents on floors two through six of the building are now equipped as campus residential quarters for some 240 students who began living there this semester.

The seventh floor will be reserved for special guests and visitors to Clemson

on university-related business, including persons attending the University's many continuing education programs and special events.

The services the hotel now provides--the main dining room, the shops and various meeting rooms--will continue to operate for the convenience of hotel residents, the general public and the numerous groups and organizations which are headquartered in or visit Clemson.

The University's continuing education programs, conferences, and special groups including alumni will continue to have priority use of the meeting rooms, Edwards said.

Jordan Hall Groundbreaking Ceremonies Scheduled

Atlantic States Construction Co. of Atlanta, Ga., has submitted the apparent low base bid of \$4,872,000 for construction of a biological sciences building that will serve some 5,000 students each semester at Clemson University.

The bid must be approved by the State Budget and Control Board and the Clemson Board of Trustees before a contract is signed. Seven companies placed bids for the project, with completion expected in two years and initial construction planned for early October.

The proposed three-story structure will be named Jordan Hall in honor of the late F. Marshall Jordan, a 1902 Clemson graduate, and his wife, Evelyn V. Jordan. Jordan left Clemson \$632,000, largest bequest in the institution's history, toward construction of the building.

Mrs. Jordan, a Los Angeles, Calif., resident who plans to make substantial additions to the bequest, will participate in groundbreaking ceremonies for Jordan Hall on Oct. 16.

The building will adjoin the eastern wing of Long Hall. Its projected 90,000 square feet of floor space will be used

entirely for lab facilities to support educational and research programs in biological science.

The structure will include areas for use by the departments of botany, biochemistry, microbiology and zoology of the College of Physical, Mathematical and Biological Sciences.

F. Marshall Jordan was a Seneca native who died in Los Angeles in 1971. He entered Clemson five years after the institution opened and majored in mechanical and electrical engineering.

Shirley Chisholm Opens 1974-75 Speakers Bureau Series

U.S. Congresswoman Shirley Chisholm of New York, who in 1972 became the first black woman to run for the office of President of the United States, will speak at Clemson University Sept. 16 in the first program sponsored by the 1974-75 University Speakers Bureau.

The program, open to the public at no charge, is at 7 p.m. in Tillman Hall Auditorium.

A firm believer in coalition politics, Ms. Chisholm discusses practical approaches toward achieving a coalition in America. She credits the youth of the country with introducing the most important themes in politics in the past 12 years. She will discuss her 1972 campaign, how her main function was to harass the major candidates into taking stands on important but "sensitive issues," and the major campaign participants.

Others on the 1974-75 slate of speakers are ABC sports commentator Frank Gifford (Oct. 10); entertainer and author Orson Bean (Oct. 24); journalist Bob Katz, who presents a lecture, slide and question and answer program on "Who Killed JFK?" (Nov. 14); CBS News correspondent Roger Mudd (Jan. 21); and psychologist Dr. Joyce Brothers (Feb. 12).

The final speaker in the series will be announced later.

Open House Marks Army ROTC Week

Sept. 8-14 was proclaimed "Army ROTC Week in South Carolina," and Clemson's ROTC Department marked the event with an informal open house throughout the week.

Clemson has 166, including 16 women, enrolled in ROTC this semester. There are more than 33,200 men and women in college ROTC programs throughout the United States.

Students on ROTC scholarships or those in the advanced programs receive \$100 a month for up to 10 months of the school year for college expenses. Cadets may also enter the ROTC Flight Instructional Program. They receive over 36 hours of in-flight instruction and 35 hours of ground instruction and may qualify for a private pilot's license.

Horticulture Department Receives Gift-In-Kind

Thanks to a gift-in-kind, Clemson's Horticulture Department is using a sound-slide projector valued at \$1,500. The projector was made available to the department by Weldon Blanton, regional manager, Farmers Cooperative Exchange (FCX), Inc. in cooperation with FCX, Inc. and Dow Chemical Co.

Two graduate hortitherapy students are using the projector while working with the mentally retarded, alcohol and drug abusers and law offenders participating in the hortitherapy program.

Hortitherapy is a therapeutic treatment, giving these special people a sense of accomplishment and responsibility that comes through working with plants, Prof. Taze L. Senn, head of the horticulture department, said.

Such horticultural activities as arranging flowers, making terrariums, drying flowers and planting gardens are taught

during weekly visits to participants in the program.

Senn explained that with the new equipment, slides and tape recordings of the participants working can be synchronized and used later in other educational programs.

Clemson Scientist Will Use Mobile Lab In Textile Waste Research Project

Clemson Scientists are using a "laboratory on wheels" to help the textile industry clean up its waste streams and possibly save untold money in recycled resources.

The \$100,000 tractor-trailer rig, on loan from Oak Ridge National Laboratory, is being used for on-site research in a project to test and evaluate, on a large scale, a water purification process called hyperfiltration or reverse osmosis.

Prof. Craig A. Brandon of the Mechanical Engineering Department and Prof. John J. Porter of the Textile Department, are the principal investigators on the project.

Clemson is conducting the study for the S.C. Textile Manufacturers Association, which has received a \$145,000 grant from the U.S. Environmental Protection Agency. Another \$81,500 of in-kind contributions such as use of quality control lab equipment and personnel will be provided by the fourteen participating textile plants.

The researchers want to determine if the treatment method can be used to clean up the effluent from a variety of textile dyeing and finishing operations, and also reclaim valuable wastestream constituents such as chemicals, water and heat now being lost.

Brandon and Porter have already had success with the process on a pilot plant at LaFance Industries, a division of Riegel Textile Corp. Both the purified or renovated wastewater and the highly concentrated dye residue from the treatment of textile dye waste have been reused in

Clemson University Library

in production dyeings of furniture and automotive upholstery fabrics. Hyperfiltration offers the potential for mills to save money by recovering expensive chemicals, dyes, and heat normally discarded in hot textile wastes as well as recovering the water itself, according to Brandon.

Porter conservatively estimates that the

economic value of the potentially recoverable constituents in a typical two million gallon per day textile waste stream totals \$1,600 per day.

Porter believes hyperfiltration may also be the new treatment method that could permit new production processes to be developed that may have been previously considered too expensive.

CALENDAR OF CAMPUS EVENTS

- 15-10/11 -- Architecture Exhibition: Works of the Visual Studies Department including sculptures, ceramics, photographs, photosili-screens and painting. Featured with this exhibit will be pottery of the New Mexican Pueblos, a traveling exhibit sponsored by the Exxon Company. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 15 -- University Union Sunday Free Flick: The Tramp, The Vagabond, and the Immigrant. 8:00 p.m., Daniel Auditorium, University I. D. required, admission free.
- 16 -- Architecture Lecture: "Structures at Dacca," with Harry Palm-baum, structural engineer, South Bethlehem, New York. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 16 -- Speakers Bureau: Shirley Chisholm, Congresswoman from New York and first black woman to run for the office of President of the U.S. 7:00 p.m., Tillman Auditorium, open to the public, admission free.
- 16 -- JV Football: The Citadel, 2:00 p.m., here.
- 16 -- Intramural Sports: Tennis, Men's and women's doubles, entries close Sept. 20. For further information, contact the Intramural Sports Office, 656-2116.
- 16 -- German Film: Confessions of Felix Krull. Sponsored by the Language Department, 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 16-20 -- Camping Program for Senior Citizens: For indigent elderly, Oconee State Park Sponsored by the Department of Recreation and Park Administration and the S.C. Commission on Aging. For further information, contact the Department of Recreation Adminstration, Godfrey Hall, 656-3400.
- 16-17 -- Short Course: Housing Inspection. Sponsored by Continuing Engineering Education. Open to all interested persons, fee varies. For further information, contact, the Office of Continuing Engineering Education, 116 Riggs Hall, 656-3308.
- 17 -- History Film: Robert Stevenson's Tom Brown's School Days. Sponsored by the History Club, discussion led by Dr. C.A. Grubb. 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 17 -- ECKANKAR Lecture: "Spritiual Aspects of ECKANKAR," 7:30 p.m., Daniel Hall, open to the public, admission free.
- 18 -- University Union Fine Arts Film: The Private Life of Henry VIII. 8:30 p.m., Daniel Auditorium, University I.D. required, admission free. (tentative)
- 18 -- Fort Hill Clemson Club Quarterback Luncheon, 12 Noon, Clemson House.

CALENDAR OF CAMPUS EVENTS Continued

- 18 -- Seminar: Industrial Energy Conservation. Sponsored by Continuing Engineering Education. Open to all interested persons, fee varies. For further information, contact the Office of Continuing Engineering Education, 116 Riggs Hall, 656-3308.
- 19-20 -- Fourth Annual Clemson Reading Conference, Clemson House. Sponsored by the Department of Elementary and Secondary Education, open to all interested persons, fee varies. For further information, contact Dr. Gordon Gray, 100 Godfrey Hall, 656-3482. Expected enrollment, 1,000.
- 21 -- Concert: Peter Yarrow from the original Peter, Paul and Mary group. Peter now has his own band and does a wide variety of contemporary music. Sponsored by the University Union. 8:00 p.m., Tillman Auditorium, open to the public admission \$1.50 with I.D., \$2.00 general public. Tickets available at the Y.M.C.A. and at the door.
- 22 -- University Union Sunday Free Flick: Lost Horizon. 8:00 p.m., Daniel Auditorium, University I.D. required, admission free.
- 23 -- Agronomy Lecture: "U.S. Nitrogen Situation and Future Supplies." Dr. I.M. Wofford, Kaiser Agricultural Chemicals. Sponsored by the Department of Agronomy and Soils. 9:05 and 11:15 a.m., A-203 P&AS Bldg. open to the public, admission free.
- 23 -- JV Football: Furman, 2:00 p.m., here.
- 23-27 -- Camping Program for Senior Citizens: For indigent elderly, Oconee State Park. Sponsored by the Department of Recreation and Park Administration, Godfrey Hall, 656-3400.
- 24 -- History Lecture: "The Pre-Raphaelite Painters," with Ian Lowe, Ashmolean Museum, Oxford, England. 7:30 p.m., Hardin Hall, open to the public, admission free.
- 24 -- ECKANKAR Lecture: "The Vairagi Masters and the ECK Teachings." 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 25 -- Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 26 -- Soccer: Furman, 3:00 p.m., here.
- 26-28 -- Professional Coffeehouse Act in "The Gutter" Coffeehouse (basement of Holtzendorff YMCA), 8:30, 9:30, 10:30 p.m. each night, admission 50¢. (tentative)
- 28 -- Football: Georgia Tech, 1:00 p.m., here.
- 28 -- Open House at the Clemson Alumni Center, 9:00 a.m. - 12 Noon.
- 29 -- University Union Sunday Free Flick: "What's Up, Tiger Lilly?" 8:00 p.m., Daniel Auditorium, University I.D. required, admission free.

CALENDAR OF CAMPUS EVENTS Continued

- 30 -- Spanish Film: Lazarillo. Sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 30 -- Architecture Lecture: "Recent Projects" with Hugh Newell Jacobsen, FAIA. architect, Washington D.C. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.

WEPR Highlights

South Carolina Education Radio Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville, and WSCI, 89.3-FM, Charleston.

- 16,23&30 -- Shakespeare Scene-By-Scene, with Dr. Ray Barfield, English Dept. "Romeo and Juliet." 11:00 a.m.
Film Fifteen, with Bob Austin, Communications Center, and Dr. William Koon, English Dept. 12 Noon & 7:45 p.m.
- 17&24 -- Music From The Mountains, with Edith Card, Music Dept.
"Play Party Games" (17); "Fort Hill String Band" (24). Noon and 7:45 p.m.
- 18&25 -- Foreign Language Forum, from the Department of Languages.
French drama and poetry. 11:15 a.m.
Physical Science In The Real World, from the Department of Physics. "Crystals - Gems or Junk" (18), with Dr. R.L. Chaplin; "Radar Observations of Weather" (25), with Dr. C. Ulbirth. 11:45 a.m.
Environment '74, with Hank Cheney. 12 Noon and 7:45 p.m.
- 18,21,
25&28 -- Political Issues, with Dr. Martin Slann, Political Science Dept. "Local Courts in South Carolina," with Pickens County Judge John Gentry (18&21); "Washington Press Corps," with correspondent Lee Bandy (25&28). Wednesdays, 11:00 a.m. & Saturdays, 6:30 p.m.
Word-Go-Round, with Herman Felder. "Phobe Words" (18&21); "Australlian Slang," with guest Harold Oliver (25&28). Wednesdays, 11:30 a.m. & Saturdays, 6:45 p.m.
- 19&26 -- Poetry Today, with Dr. Robert W. Hill, English Dept.
"W.S. Merwin" (19); "Gwendolyn Brooks" (26). 12 Noon & 7:45 p.m.
- 20&27 -- Food For Thought, with Marie Hindman, Extension Home Economist. "The Nutrition Countdown," with Rose Davis, Extension Home Economist (20); "Seafood," with Dr. Ken Rogers, Marine Research (27). 12 Noon and 7:45 p.m.
Robert A. Taft Lectures, from the Political Science Dept. "Federal Courts and Constitutional Law," U.S. Court of Appeals Judge Donald Russell (20); "The Role of City Manager," Greenville City Manager John Dullea (27). 11:00 a.m.
Majors and Minors, with Ray Barfield. "Music and the Military Life"(20); "The Louisville Experiment" (27). 2:00 p.m.

CALENDAR OF CAMPUS EVENTS Continued

21&28 -- Performance. Greenville Symphony Orchestra (21); Clemson Gilbert and Sullivan Quartet (28). 9:00 p.m.
Majors and Minors. "Music and the Military Life." 10:30 p.m.

daily -- Carolina Weathervane, from Clemson Extension Service; S.C. Experiment Station and National Weather Service, featuring agricultural news, weather, recommendations and county reports.
12:15 p.m.

FACULTY SENATE ROSTER 1974-1975

* Committee Chairmen. Advisory Committee members are underlined.

KEY: Admissions and Scholarship (A). Policy (P). Research (R). Welfare (W).

NAME	ACADEMIC UNIT	CAMPUS ADDRESS	PHONE	TERM ENDS
<u>Agricultural Sciences (10)</u>				
V. D. Carmack (W)	Home Economics	240 P&AS Bldg.	3268	1975
T. R. Adkins, Jr. (Sec)	Entom & Econ Zool	B-28 Long Hall	3111	1975
D. O. Ezell (R)	Horticulture	159 P&AS Bldg.	3403	1975
F. H. Hedden (P)	Agric Engr	173 P&AS Bldg.	3160	1976
G. D. O'Dell (R)	Dairy Science	115 P&AS Bldg.	3230	1976
G. C. Skelley (A)	Animal Science	B-106 Newman	3459	1976
J. C. Acton (R)	Food Science	235 P&AS Bldg.	3397	1977
K. A. Holleman (R)	Poultry Science	132 P&AS Bldg.	3163	1977
J. D. Maxwell (W)	Agronomy & Soils	279 P&AS Bldg.	3104	1977
W. Witcher (R)	Plant Path & Phys	205 Long Hall	3450	1977
<u>Architecture (1)</u>				
K. E. Carpenter (Vice-Pres)	Arch Design Studies	112 Lee Hall	3081	1976
<u>Education (2)</u>				
J. E. Matthews (W)	Elem & Second Ed	115-B Godfrey	3484	1976
R. T. Benson (P)	Voc Ed Media Center	109 Freeman	3115	1977
<u>Engineering (5)</u>				
W. Baron * (W)	Civil Engr	302 Lowry	3002	1975
L. T. Fitch * (A)	ECE	206 Riggs	3379	1976
J. A. Chisman (P)	EE & CE	222 Riggs	3379	1977
B. L. Edge (R)	Civil Engr	501-2 Rhodes	3276	1977
J. G. Goree (R)	Engr Mech	312 Lowry	3370	1977
<u>Forest and Recreation Resources (1)</u>				
H. J. Grove (P)	RPA	220 Godfrey	3400	1976
<u>Industrial Management and Textile Science (2)</u>				
C. W. Roberts * (P)	Textiles	223 Sirrine	3177	1976
E. L. Powers (A)	Ind Mgt	110 D Sirrine	3496	1977
<u>Liberal Arts (6)</u>				
T. E. Douglass (W)	English	412 Strode	3235	1975
L. E. Seamon (E.P. Arnold) (P)	Languages	302 Strode	3035	1975
A. L. Recoulley (P)	English	807 Strode	3047	1975
A. H. Holt (P)	English	804 Strode	3289	1975
M. W. Slann (W)	Political Science	309 Strode	3219	1976
J. Y. LeBourgeois (A)	History	119 Hardin	3153	1976
<u>Library (1)</u>				
C. Triche III (W)		Library	3025	1977
<u>Nursing (1)</u>				
M. A. Teklits (A)	Nursing	703 Strode	3075	1977
<u>Physical, Mathematical, and Biological Sciences (6)</u>				
C. R. Dillon (Pres)	Botany	101 Kinard Annex	3452	1975
P. T. Holmes (W)	Math Sciences	0-329 Martin	3433	1975
A. S. Tombes (A)	Zoology	108 Kinard Annex	3247	1975
O. J. Jacobus (A)	Chem & Geology	312 Brackett	3133	1976
B. B. Bookmyer (R)	Physics & Astr	103 Kinard	3417	1977
C. B. Russell (A)	Math Sciences	0-324 Martin	3433	1977

FACULTY RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for Faculty Research Committee grants should be in the Office of University Research (E-107 Martin Hall) not later than November 1, 1974. Application forms may be secured in the Office of University Research. Only proposals using the Faculty Research Committee application forms will be considered by the committee.

The committee makes awards to new faculty members initiating research, to faculty members initiating research in a new area, and to faculty members in areas where other sources of support are inadequate or non-existent.

ACCOUNTING AND FINANCE DEPARTMENT

James A. Turner (Assoc Prof) was elected to serve as Vice President of the South Carolina Association of Certified Public Accountants at their convention which was held in Atlanta, June 29. Professor Turner was also elected to a three year term (1974-1977) as trustee of the South Carolina Association of Certified Public Accountants Educational Fund, Inc.

AGRICULTURAL ENGINEERING

A. W. Snell (Prof and Hd) was elected to the Board of Directors Universities Council on Water Resources at the annual meeting held in Logan, Utah on July 29-31.

COLLEGE OF ARCHITECTURE

R. H. Hunter (Prof) is now exhibiting painting, serigraphs and drawings in a one man show at Springs Mill, S.C. and paintings and sculpture at the New Greenville Museum of Art. His recent serigraphs may be seen at the Gallery, Spartanburg.

Tom Turner (Asst Prof) has been awarded a Craftsmans Fellowship from the National Endowment for the Arts, Washington, D.C. The fellowship was awarded relative to research begun at Clemson and continued at his Liberty studio. Professor Turner was one of eleven ceramic artists awarded fellowships from throughout the United States.

COLLEGE OF ARCHITECTURE (Continued)

Donald Collins (Assoc Prof) participated in the Association of Collegiate Schools of Architecture's annual meeting and the preceding Teacher's Seminar in Asheville, N.C. He also represented the College of Architecture at the National Council of Instructors in Landscape Architecture's annual meeting at Gainesville, Fla.

James Dalton (Asst to the Dean) participated in an American Collegiate Schools of Architecture Short Course for Architectural Administrators in Cranbrook Academy, Bloomfield Hills, Mich., Aug. 1-4.

ECONOMICS DEPARTMENT

Hugh Macaulay (Alumni Prof) has published, "An Evaluation of Subsidies for Water Pollution Abatement," in a compendium of papers on The Economics of Federal Subsidy Programs prepared by the Joint Economic Committee of the U.S. Congress.

Hugh Macaulay will be the Visiting Professor of Economics at Texas A & M University during the fall semester.

Alex Velez (Instr) participated in a panel on Pre and Post Occupancy Counseling during the first annual Conference of the National Federation of Housing Counselors held in Atlanta, June 16-18.

Clifford H. Patrick (Visit Asst Prof) attended the Western Economics Association Conference, in June, where he was chairman for the Industrial Organization Session and presented a paper, "Measuring the Competitive Advantage of the Suburbs," in the Urban Economics Session.

Clifford H. Patrick and P. N. Ritchey co-authored a paper, "Changes in Population and Employment as Process in Regional Development," for publication in Rural Sociology.

John McAlhany of the Citadel and Clifford H. Patrick were co-principal investigators of a project entitled, "Assessment of Labor Availability for Fisheries Industries in Coastal Counties," funded for FY75 as a Sea Grant research project.

Holley H. Ulbrich (Assoc Prof) and Bruce Yandle (Assoc Prof and Hd) were co-investigators with Clifford H. Patrick of an economic impact study for the South Carolina Appalachian Council of Government.

ECONOMICS (Continued)

Clifford H. Patrick presented seminars in Charleston and Beaufort on "Occupational Safety and Health in the Public Sector."

D. W. Lyons (Assoc Prof, Textiles) and Clifford H. Patrick presented a seminar on "Safety and Health in Trade and Industrial Education," at the annual Vocational Teacher's Conference which was held at Winthrop College.

ENVIRONMENTAL SYSTEMS ENGINEERING

F. L. Delvecchio (Proj Adm) has been appointed by South Carolina Governor John West to serve a three-year term on South Carolina's Board of Certification for Environmental Systems Operators.

J. F. Andrews (Prof) presented an invited paper entitled, "Dynamic Modeling and Computer Simulation of Wastewater Treatment Systems," at a Conference on Modeling and Simulation of Water Resources Systems, University of Ghent, Belgium, Aug. 1. The Conference was sponsored by the International Federation for Information Processing.

J. F. Andrews was invited to serve as a Visiting Professor by the College of Engineering, University of Cape Town, South Africa, for the week of Aug. 4-10. While in Cape Town he presented two seminars entitled, "Dynamic Modeling and Simulation of the Anaerobic Digestion Process," and "Control Systems for Wastewater Treatment Plants," as well as delivering two lectures to the Junior and Senior Chemical Engineering Students.

J. F. Andrews presented an invited lecture on "Dynamics and Control of Anaerobic Digestion" at the South African meeting of the Institute of Water Pollution Control, Pretoria, South Africa, Aug. 15. He also presented this same lecture to the faculty and graduate students, Department of Chemical Engineering, University of Natal, South Africa, on Aug. 12 and to the City Engineering Staff, Johannesburg, South Africa on Aug. 16.

GEOLOGY

The Brevard Zone Penrose Research Field Conference was held Aug. 4-12, along the Brevard fault zone from Alabama to near Martinsville, Va. Some 38 geologists from 14 states and several foreign countries participated. It was organized and convened by Robert D. Hatcher, Jr. (Assoc Prof) who also conducted the field trip through the portion he has studied during part of the conference and served as moderator during the final day of discussions. Geologists from other universities, state geological surveys and the U. S. Geological Survey served as co-leaders. The Brevard fault zone is an inactive fault having had a complex history and has been intensively studied over the past 10 years by a number of geologists.

Penrose Conferences are sponsored by the Geological Society of America and consist of small invited groups of specialized scientists gathered to discuss topics of mutual interest. Of the 20 or so conferences held thus far, this is only the second field conference and the first Penrose Conference held in the southeast.

HISTORY

Joseph Arbena (Assoc Prof) has published a review of Jerome S. Handler, The Unappropriated People: Freedmen in the Slave Society of Barbados, in History: Review of New Books, Vol. 2, No. 8 (July 1974) 200.

James E. Sargent (Asst Prof) has published, "FDR and Lewis W. Douglas: Budget Balancing and the Early New Deal," in Prologue, VI (Spring, 1974).

E. M. Lander, Jr. (Alumni Prof) was Visiting Professor of History at the University of North Carolina, Chapel Hill, for second summer session.

INDUSTRIAL MANAGEMENT

Paul F. Peterson (Instr) presented a paper entitled, "OSHA Requirements and Responsibilities of the Building Inspector," at the short course in "Building Inspection" held at Clemson University, Aug. 13-15.

W. W. Menke (Assoc Prof) published a paper, "Indentification of Viable Biological Strategies for Pest Management by Simulation Studies," in IEE Transactions on Systems, Man and Cybernetics, Vol. SMC-4, No. 4, July, 1974.

HORTICULTURE

C. E. Gambrell (Asst Prof), J. R. Haun (Prof), M. L. Robbins (Assoc Prof), and E. T. Sims, Jr. (Prof), participated in the annual meeting of the American Society for Horticultural Science, which was held in Gulph, Ontario, Canada, Aug. 9-14, in conjunction with the Canadian Society for Horticultural Science.

The following papers were presented:

J. R. Haun - "Environmental Model for Potato Production."

M. R. Robbins - "Drip Irrigation of Tomato and Cucumber: Influence on Yield of Tomato and on Yield and Placenta Hollowness of Cucumber."

M. R. Robbins and W. R. Sitterly (Prof and Supt) - "Population Pressure in Cabbage: Influence on Yield, Disease Incidence, and Insect Control."

E. T. Sims, Jr., C. E. Gambrell, Jr., B. K. Webb (Prof, Ag E), C. E. Hood (Prof, Ag E), and J. G. Williams, Jr. (Instr, Ex St) - "Ripening and Storage Patterns of Mechanically Harvested Fresh Market Peaches."

MATHEMATICAL SCIENCES

Austin J. Lemoine (Asst Prof) attended the Fourth Conference on Stochastic Processes and Their Applications held at York University, Toronto, Canada on Aug. 5-9 and presented a paper entitled, "On Two Stationary Distributions in Queueing Theory."

Austin J. Lemoine spent the summer quarter in the Department of Operations Research at Stanford University and gave a graduate course in stochastic models in operations research.

D. R. LaTorre (Assoc Prof) and W. J. Ruckle (Prof) attended the International Congress of Mathematicians, held in Vancouver, Canada, Aug. 21-29. Professor LaToree participated by invitation in a four-day "Seminar in the Algebraic Theory of Semigroups," and served as a panelist in two of the sessions. Professor Ruckle presented a paper entitled, "Absolutely Divergent Series and Isomorphism of Subspaces," and lectured in a seminar on the topic, "Nuclear Sum Spaces." The International Congress convenes every four years, the last being in Nice, France in 1970, and brings together many of the world's leading mathematicians.

T. G. Proctor (Prof) participated by invitation in the International Symposium on Dynamical Systems held Aug. 12-16 at the Lefschetz Center for Dynamical Systems at Brown University, Providence. His paper, "Boundry Value Problems for Perturbed Differential Equations," will appear in the to-be-published Proceedings of the symposium.

MECHANICAL ENGINEERING

James G. Goree (Assoc Prof) spent the period, June 3 - Aug. 9 at the NASA Langley Research Center as a summer Faculty Fellow in the Fracture Mechanics Section of the Structural Integrity Branch.

OFFICE OF PROFESSIONAL DEVELOPMENT

Ernest B. Berry (Consultant and former Assoc Prof, N.C. State Univ), along with Julius C. Hubbard (Prof, Textiles) and John V. Walter (Prof, Textiles) will present a Professional Development Program, "Weaving I: Basic Design," in Sirrine Hall, Sept. 26-28. The program is co-sponsored by the College of Industrial Management and Textile Science.

On Oct. 1, the State of South Carolina Personnel Division - Training and the Office of Professional Development will present, "Effective Time Management by the Secretary" in Columbia. Norman Kobert of N. Kobert Management Consultants, New York, will be the lecturer. Janet J. Glocker (Instr, Econ) is the coordinator.

The Department of the Navy and the Office of Professional Development will present, "Effective Time Management by the Executive," in Charleston on Sept. 30. Norman Kobert of New York will be the guest lecturer and Janet J. Glocker (Instr, Econ) is the coordinator.

Clifford H. Patrick (Visit Asst Prof, Econ) will be the chairman for a "Safety and Health Workshop for Public Sector Safety Specialists," Oct. 1-3, in Sirrine Hall. This program is co-sponsored by the College of Industrial Management and Textile Science.

Robert L. Brown (Visit Prof, Ind Mgt) and Joseph T. Allmon (Vice Pres, Riegel Textile Corp) will present, "Practical Skills in Managing People," on Oct. 8-9 in Sirrine Hall. This program is co-sponsored by the Office of Professional Development and the College of Industrial Management and Textile Science.

POLITICAL SCIENCE

Charles W. Dunn (Assoc Prof and Hd) served as a judge for the J. Mitchell Graham Award to South Carolina's best county of the year, an award given by the South Carolina Association of Counties at Myrtle Beach, Aug. 22-24.

Charles W. Dunn participated on a panel at the American Political Science Association's annual convention in Chicago, Aug. 28-31.

Martin Slann (Asst Prof) reviewed Avraham Avihai, Ben Gurion State-Builder: Principles and Pragmatism 1948-1963 in Perspective Vol. 3, No. 6 (July/August, 1974), 138-139.

POULTRY SCIENCE

Poultry Science staff members attended the annual meeting of the Poultry Science Association at Morgantown, W. Va., Aug. 5-9 and presented papers as follows:

"Effect of Abruptly Changing Dietary Energy Levels and Environmental Temperature on Feed Consumption and Egg Production of S. C. White Leghorns," by J. E. Jones (Assoc Prof), co-authored by B. L. Hughes (Asst Prof) and B. D. Barnett (Prof and Hd).

"Isolation of Individual Leukocyte Types and Gametocytes of Leucocytozoon smithi from Peripheral Turkey Blood," by J. W. Dick (Asst Prof).

"Effect of Drying Temperature and Length of Drying Time on Survival of Microorganisms in Turkey Litter," by D. L. Cross (Asst Prof) co-authored by D. S. Triche (former Lab Tech) and J. W. Dick.

"Volume Reduction and Various Cooking Treatment Effects on Peelability of Eggs," by K. A. Holleman (Prof).

"A Case for the County Agent," by K. A. Holleman.

"Reproduction of Bobwhite Quail as Affected by Day Length and Sex Ratio," by W. S. Walker (Assoc Prof).

"Prepotency for Males in One Strain of White Plymouth Rocks," by M. A. Boone (Prof), co-authored by B. L. Hughes (Asst Prof).

B. D. Barnett presented "Poultry in Art" at the XV Worlds Poultry Congress in New Orleans, Aug. 11-16. He also presented "Photoperiods for Layers" co-authored by J. B. Cooper (Assoc Prof). Dr. Barnett arranged an exhibition of Poultry Art that included work of local artists Myrtie Cholewinski, Kate Palmer, and Henry Miller.

TEXTILE DEPARTMENT

E. I. Stearns (Prof and Hd) visited Saco-Lowell in Easley with Charles Bird, a rising Junior, who was presented with a \$500 scholarship check.

Donald W. Lyons (Assoc Prof) and Robert H. Barker (J. E. Sirrine Prof) were principal investigators of a \$10,000 grant from the Consumer Product Safety Commission to conduct two short courses on "Consumer Safety and Textile Flammability." The courses, held during August, were attended by over 50 Consumer Safety Investigators responsible for the enforcement of the textile flammability safety standards.

Donald W. Lyons received a continuation of a research grant from the United States Department of Agriculture. The grant will allow continuation of the cooperative research program to develop instrumentation for measurement of the properties of cotton fibers and studying the influence of these properties on spinning performance. This years' continuation of \$30,000 brings to over \$200,000 the support which the USDA has provided for this project during the past years.

ZOOLOGY

Hong S. Min (Prof) participated as an invited speaker and served as a chairman for a session at the Integrated Symposium on Science and Technology held in Seoul, Korea, from July 27 through Aug. 7. Dr. Min presented two papers at this symposium. These papers will be published in the proceedings later this fall. Dr. Min visited two research laboratories in Japan during this trip.

OFFICE OF THE DEAN OF UNDERGRADUATE STUDIES

Eligible Clemson University students who are interested in applying for a Rhodes Scholarship for study at Oxford University in England should confer with Dean Claud B. Green, E-102 Martin Hall, by October 1, 1974.





PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 4

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

October 1, 1974

OCT 2 1974



President R.C. Edwards, Dr. Herbert Brantley and Dean W.H. McGregor look over plans inside partially completed cabin.

Kresge Foundation Grant Approved For Recreation Outdoor Education Complex

A \$100,000 grant has been approved by trustees of The Kresge Foundation to assist Clemson University in construction of a major recreation-outdoor education complex on Lake Hartwell to serve special groups such as handicapped and disadvantaged children and adults.

Announcement of the award was made by William H. Baldwin, president of The Kresge Foundation of Troy, Mich., and Clemson President Robert C. Edwards.

The \$840,000 complex, which is already under construction, will comprise all of the residential buildings and supporting facilities necessary to provide a meaningful camping experience for special adult and children's groups.

Also the facility will serve as a laboratory where Clemson students and other college students majoring in recreation and park administration can gain practical, real-life experience in working with these groups.

The complex is to be located on a wooded peninsula in the Twin Lakes area of the Clemson Forest about five miles south of the University's main campus.

One of the eight-cabin divisions of the total complex will be known as "Jaycee Camp Hope" for mentally retarded adults and children. Another of the units will be used during the summers by the State Department of Mental Health for its special programs for emotionally disturbed children.

Two complete subcamps consisting of eight hexagonal cabins, a crafts center, and a central camping facility complex with dining room, administrative offices and infirmary, will be ready to welcome the first campers next spring.

Clemson Awarded Grants For Environmental Impact Studies

Two grants totaling \$139,000 have been awarded to Clemson University by Duke Power Co. and Westinghouse Electric Corp. for environmental impact studies of streams and lakes at two proposed power industry sites in the Piedmont.

Benjamin C. Dysart, engineering professor and head of the research projects, said the studies are required by regulatory agencies in order to provide a basis for comparing bodies of water before and after an industrial plant is in operation.

The \$93,000 Duke grant goes to the departments of environmental systems engineering, zoology, and chemistry and geology to investigate bodies of water which will be affected by Duke's proposed Bad Creek pumped-storage station to be located above Lake Jocassee in Oconee County.

Westinghouse has granted \$46,000 to the same departments in addition to the departments of botany and entomology and

economic zoology to conduct a similar study in connection with its proposed nuclear Recycle Fuels Plant, which will be located in the Starr-Iva area of Anderson County.

In addition to assessing present conditions of Bad Creek, the Clemson team will suggest ways in which Duke engineers might design the reservoir with a minimum effect on the environment.

The researchers will collect data on stream flow, aquatic plants and animals, sediments, and water quality to determine the later impact of the two industrial operations on the stream and lake environments.

Clemson Begins Third Year As Satellite Studio for Educational Radio

With emphasis on instructional and personal enrichment as well as entertainment programming, Clemson University has begun its third year as a satellite production studio for the S.C. Educational Radio Network.

The network stations are WSCI, 89.3 FM, Charleston, and WEPR, 90.1 FM, Greenville, and coming soon, stations in Columbia and Sumter. The bulk of programming for the state network originates from headquarters in Columbia or from National Public Radio, Washington, D.C.

At certain times of the day Clemson "switches in" to the network with 17 programs produced and fed from new stereo studios in the Clemson House.

Instructional programming designed for use in the classroom originates from the University daily.

WEPR highlights are published in the back of each issue of the Newsletter.

Three Clemson Scientists Begin Long-Term Recreation and Wildlife Research Project

Three scientists at Clemson University have begun a long-term research project

on recreation and wildlife.

Called Integrated Recreation-Wildlife Habitat Management, it is a joint venture by Clemson's College of Forest and Recreation Resources and the Southeastern Forest Experiment Station, U.S. Department of Agriculture Forest Service.

George A. James, project leader, said, "We expect to be involved for many years in forest-related research in both Carolinas, Virginia, Georgia and Florida, with heavy concentration here in South Carolina."

James and two wildlife biologists, all from the Southeastern Forest Experiment Station, in Asheville, N.C., will devote the fall and winter months to preparing study plans. Early next spring they will leave their offices on the Clemson campus to begin intensive field work at sites throughout the Southeast. The sites have not been selected yet.

They will work with University faculty members and scientists from the Belle W. Baruch Research Institute on problems of mutual concern.

Clemson and the Forest Service will share the research data.

College of Nursing Receives Grant to Fund Workshops

Clemson's College of Nursing has received a \$19,500 grant to conduct three 15-day workshops for emergency room nurses from small rural hospitals.

The first of the workshops funded by the U.S. Department of Health, Education and Welfare will begin Dec. 2. Others will be held next May and June.

Because the courses are clinically oriented, with training in the Greenville hospital system, enrollment will be limited to 10 registered nurses for each session, Prof. Mary Wagner said.

Wagner noted that in addition to upgrading emergency care, the workshops are to develop audio-visual resources for continuing nursing education.

Clemson Husband-Wife Team Publish Comprehensive Book on Sickle Cell Anemia

Charles W. Triche, reference librarian in science, technology and agriculture at Clemson University, and his wife, Diane Samson Triche, a former laboratory technologist in Clemson's poultry science department, are the authors of a new book, The Sickle Cell Hemoglobinopathies: A Comprehensive Bibliography 1910-1972.

Published by the Whitson Publishing Co., the work is a comprehensive bibliography, international in scope, of the literature surrounding sickle cell anemia.

The Triche's book is the first to undertake such a comprehensive study of the subject. It covers all aspects of sickle cell anemia, a disease affecting the hemoglobin in the black population. Topics include how the disease relates to pregnancy, air travel and genetic variance.

Hospitality Suite in College Park for Clemson Maryland Game

The Metropolitan Washington Clemson Club will be the host again this year during Maryland Game Weekend, October 11-12, at a Hospitality Suite for all alumni and friends of Clemson.

The Suite will be at the Holiday Inn at College Park. Take exit 27 off Capitol Beltway (route 495). Enjoy fellowship with alumni, friends of Clemson and their guests on Friday evening and on Saturday prior to and after the game. Club officers in charge are: Jim Ridgill '48, phone 703-557-1302 or 703-860-1235 and Stan Gilreath '56, 703-557-2906 or 703-754-8736.

Enrollment, 1965-1974

Clemson University Summer Sessions

	<u>Main Campus</u>			<u>Off-Campus</u>	<u>Total</u>
	<u>First</u>	<u>Second</u>	<u>Total</u>		
1965	1833	1383	3216		
1966	1803	1736	3539		
1967	1974	2006	3980		
1968	2435	2385	4820		
1969	2371	2101	4472	183	4655
1970	2319	2109	4428	424	4852
1971	2400	2292	4692	536	5228
1972	2779	2453	5232	769	6001
1973	3592	2675	6267	587	6854
1974	3147	2850	5997	669	6666

Student Credit Hour Production on Main Campus

1970	23,028
1971	25,586
1972	27,281
1973	27,397
1974	30,269

Enrollment of New StudentsEnrollment of Graduate Students

	<u>First</u>	<u>Second</u>	<u>Total</u>	<u>First</u>	<u>Second</u>	<u>Total</u>
1965	217	201	418	298	188	486
1966	73	285	358	324	372	696
1967	21	274	295	342	628	970
1968	36	256	292	500	778	1278
1969	34	213	247	516	621	1137
1970	94	325	419	633	719	1352
1971	90	338	428	841	851	1692
1972	42	130	172	1076	1071	2147
1973	63	203	266	1233	1149	2382
1974	61	173	234	1315	1171	2486

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, SEPTEMBER 2, 1974

Present: Robert C. Edwards, presiding; Victor Hurst, Melford A. Wilson, Stanley G. Nicholas, Joseph B. McDevitt, Walter T. Cox, Luther P. Anderson, H. Morris Cox, C. R. Dillon, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis, Melvin E. Barnette, James L. Strom and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of May 6, 1974 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommended additions, deletions and changes in the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF EDUCATION

(A) New Undergraduate Course

* IndEd 418	Technological Concepts in Mfg.	3 cr. (2 and 3)
	(Replaces IndEd 318)	

(B) New Graduate Course

* IndEd 618	Technological Concepts in Mfg.	3 cr. (2 and 3)
-------------	--------------------------------	-----------------

(*) Approved by mail ballot.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, SEPTEMBER 2, 1974 (Continued)

II. COLLEGE OF ENGINEERING

(A) New Undergraduate Course

ESE 491 Selected Topics in Environmental Engr. 1-3 cr. (1-3 or 3-9)

(B) Undergraduate Course Changes:

E&CE 320	Electronics I (Combines E&CE 320 & E&CE 325 and change in prerequisite.)	3 cr. (2 and 2)
E&CE 321	Electronics II (Combines E&CE 321 & E&CE 326)	3 cr. (2 and 2)
E&CE 329	Logic and Computing Devices (Change in credits from 3 cr (2 and 2)	3 cr. (3 and 0)
E&CE 422	Electronics III (Change in course description only.)	2 cr. (2 and 0)
ET 311	Electrical Circuits I (Change in course format.)	3 cr. (2 and 2)
ET 312	Electrical Circuits II (Change in course format.)	3 cr. (2 and 2)

(C) Graduate Course Changes

ESE 860	Ecological Models (Change in course name from BioE 860)	3 cr. (2 and 3)
SE 808	Continuous Systems Simulation (Change in title.)	3 cr. (3 and 0)
SE 809	Discrete Systems Simulation (Change in title and description.)	3 cr. (3 and 0)

III. COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

(A) *New Major in Occupational Safety and Health within the Administrative Management Program

(*) Approved by mail ballot.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, SEPTEMBER 2, 1974 (Continued)

ADMINISTRATIVE MANAGEMENT
(Occupational Safety and Health Major)

Freshman Year

Chem 101	General Chemistry	4	(3,3)	Chem 102	General Chemistry	4	(3,3)
or Phy Sc 101	Phy Science I	4	(3,2)	or Phy Sc 102	Phy Science II	4	(3,2)
Engl 101	English Composition	3	(3,0)	Engl 102	English Composition	3	(3,0)
Math 101	Math Analysis I	3	(3,0)	Math 102	Math Analysis II	3	(3,0)
Hist 173	Western Civilization	3	(3,0)	Pol Sc 201	Intro to Pol Sc	3	(3,0)
Pol Sc 101	American National Gov	3	(3,0)	Elective		3	
Elective		1					

17**16****Sophomore Year**

Acct 200	Managerial Accounting	3	(3,0)	SH 201	Scope & Func of		
Econ 201	Principles of Econ	3	(3,0)		Safety Professionals	3	(3,0)
Soc 201	Intro to Sociology	3	(3,0)	Soc 351	Industrial Sociology	3	(3,0)
Math 203	Elem Stat Inference	3	(3,0)	Econ 202	Prin of Economics	3	(3,0)
Engl	Literature Requirement	3	(3,0)	Psych 201	General Psychology	3	(3,0)
Elective		1		CompSc 205	Elem Computer Prog	3	(3,0)
				IM 201	Intro to Ind Mgt	3	(3,0)

16**18****Junior Year**

SH 301	Accident Prev & Loss			SH 302	Meas of Effect of		
	Control Procedures	3	(3,0)		Safety & Health Prog	3	(3,0)
SH 303	Occupational Accident Prev	3	(3,0)	IM 307	Personnel Management	3	(3,0)
Law 312	Commercial Law	3	(3,0)	Law 313	Commercial Law	3	(3,0)
IM 304	Quality Control	3	(3,0)	Mgt Sc 310	Intro to Mgt Science	3	(3,0)
Econ 301	Economics of Labor	3	(3,0)	Pol Sc 321	General Public Adm	3	(3,0)

15**15****Senior Year**

SH 401	System Safety	3	(3,0)	SH 403	Fire Protect/Prevent	3	(2,2)
SH 402	Occupational Safety Field			SH 404	Occupational Health Mgt	3	(2,2)
	Operations	3	(1,6)	Elective	Safety & Health	3	
Elective	Safety and Health	3		Mgt Sc 414	Statistical Analysis	3	(3,0)
Engl 304	Adv Composition	3	(3,0)	or IM 404	Managerial Econ	3	(3,0)
IM 402	Op Plan & Control	3	(3,0)	IM 410/407	Directed Research	1	(1,0)
IM 418	Mgt Infor Systems	3	(3,0)	IM 415	Managerial Dec Making	3	(3,0)
or IM 405	Econ of Transportation	3	(3,0)	IM 499	Comp Prog II	1	(1,0)

18**17****SAFETY AND HEALTH ELECTIVES:**

SH 410	Public Safety
SH 411	Product Safety
EnH 471	Man and His Environment
ME 451	Safety Engineering

Econ 306	Risk and Insurance
Ind Ed 325	Industrial Organization & People
Ed 458	Health Education
ChE 461	Industrial Hygiene Analysis & Instrumentation
Other Courses in psychology, humanities, etc.	

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, SEPTEMBER 2, 1974 (Continued)

IV. COLLEGE OF LIBERAL ARTS

(A) New Undergraduate Courses

*Engl 482	Special Topics in Literature	3 cr. (3 and 0)
Hist 198	Current History	1 cr. (1 and 0)
PolSci 482	The Political Novel & the Cinema	3 cr. (3 and 0)
RussH 101	Elementary Russian	4 cr. (3 and 1)
	Request for Honors section of Russ 101	
RussH 102	Elementary Russian	4 cr. (3 and 1)
	Request for Honors section of Russ 102	
RussH 201	Intermediate Russian	3 cr. (3 and 0)
	Request for Honors section of Russ 201	
RussH 202	Intermediate Russian	3 cr. (3 and 0)
	Request for Honors section of Russ 202	

(B) Undergraduate Course Changes

Engl 340	Black American Literature	3 cr. (3 and 0)
	(Change in number; replaces Engl 240)	
Engr 411	The Classics in Translation	3 cr. (3 and 0)
	(Change in number only; replaces Engl 221)	
Hist 499	Studies in History	3 cr. (3 and 0)
	(Change in course description only)	

(C) New Graduate Course

* PolSci 642	Political Parties and Politics	3 cr. (3 and 0)
	(Currently PolSci 442--request for extension to graduate level)	

V. COLLEGE OF NURSING

(A) New Undergraduate Course

Nurs 209	Nursing Skills Lab.	1 cr. (0 and 3)
	(Replaces N 208 as content of N 208 to be included in N 209.)	

(*) Approved by mail ballot.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, SEPTEMBER 2, 1974 (Continued)

VI. COLLEGE OF PHYSICAL, MATHEMATICAL & BIOLOGICAL SCIENCES

(A) New Graduate Courses

*Phys 723	Weather Science for Science Teachers	3 cr. (3 and 0)
Phys 890	Directed Activities in Applied Physics	variable credit

Action: Approved.3. Guidelines for a Non-thesis Option in the Master of Science Degree in Physics

The Dean of the University recommended that the following guidelines for a non-thesis option in the Master of Science Degree in Physics be adopted:

A minimum of 36 semester hours of credit is required including a written report on 6 credit hours of Physics 890, Directed Activities in Applied Physics. Of the remaining 30 credit hours, at least 12 must come from courses numbered 800 or above and a minimum of 12 credit hours must be in the student's major field.

A brief description of the arrangements and activities forming the content of the Physics 890 course must be approved by the student's advisor and appended to the preliminary study plan (GS 2 form) prior to enrollment in that course. The student's grade in Physics 890 will be on a Pass-Fail basis and will be determined by the chairman of the student's advisory committee who will be a departmental faculty member or an appropriate adjunct professor.

Physics 890 and Physics 891, Research, are not equivalent courses and may not be substituted for each other.

Action: Approved.4. Elective Credit and Eligibility for Course Enrollment for Undergraduates

The Dean of the University recommended the following policy pertaining to elective credit and eligibility for course enrollment for undergraduates:

The College and the Department in which a student is enrolled determine what courses a student may use for elective credit toward an undergraduate degree. The College and the Department in which a course is taught determine the eligibility for enrollment in a course.

Action: Approved

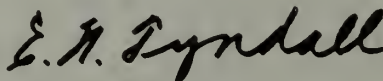
(*) Approved by mail ballot.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, SEPTEMBER 2, 1974 (Continued)5. Class Attendance Policy for Undergraduates

The Dean of the University recommended and the Council approved by mail ballot the following Class Attendance Policy for Undergraduates:

- (1) Regular and punctual attendance at all class and laboratory sessions is the responsibility of each student. College work proceeds at such a pace that regular attendance is necessary in order for each student to obtain maximum benefits from instruction. All absences are matters to be resolved between the instructor and the student. In the event that a student finds it necessary to be absent from a class, it is the student's responsibility to make up resulting deficiencies.
 - (2) In an early class the instructor shall inform the students of the attendance policy for that class.* A student who incurs excessive absences may be dropped from a course by the instructor.
 - (3) Students desiring to withdraw from a class must secure a drop card from the Registrar's office prior to terminating attendance. A student enrolled in the last five weeks of classes shall have final grades recorded.
- (*) Departments may establish uniform attendance policies for multiple section courses.

Action: Approved.



E. N. Tyndall
Secretary

MINUTES OF THE UNDERGRADUATE COUNCIL, JUNE 25, 1974

The Undergraduate Council met in the Conference Room, E-103A Martin Hall. The following were present: Dean Claud B. Green (Chairman), Carolyn Briscoe, Lamar H. Brown, N. Dwight Camper, Arline Duvall, Ralph W. Gilchrist, Jerome V. Reel, Malcolm J. Skove, Edward A. Vaughn, Kenneth N. Vickery, and C. Ronald Dillon, President of the Faculty Senate.

The minutes of the May 3, 1974, meeting were approved as distributed.

Dean Green announced that the proposed class attendance policy is being circulated by Dean Hurst to members of the Educational Council. No class attendance policy is printed in the current student handbook.

College of Engineering

The following courses were approved:

CE	403	Modern Uses of Computers in Structural Engineering, 3 cr (2 and 2).
CE	441	Applied Hydraulics, 3 cr (3 and 0).
E&CE	320	Electronics I, 3 cr (2 and 2) - The Council recommended that consideration be given to changing the course number to avoid confusion in the catalog listing.
E&CE	321	Electronics II, 3 cr (2 and 2).
E&CE	329	Logic and Computing Devices, 3 cr (3 and 0).
E&CE	403	Energy Conversion, 3 cr (3 and 0).
E&CE	422	Electronics III, 2 cr (2 and 0).
ET	311	Electrical Circuits I, 3 cr (2 and 2).
ET	312	Electrical Circuits II, 3 cr (2 and 2).
ESE	491	Selected Topics in Environmental Engineering, 1-3 cr (1-3 or 3-9).

The following course was tabled:

ChE	441	Senior Inspection Trip, 0 cr (0 and 0).
-----	-----	---

College of Liberal Arts

The following course was approved:

Hist	499	Studies in History, 3 cr (3 and 0).
------	-----	-------------------------------------

College of Nursing

The following course was approved:

Nurs	209	Nursing Skills Lab, 1 cr (0 and 3).
------	-----	-------------------------------------

MINUTES OF THE UNDERGRADUATE COUNCIL, JUNE 25, 1974 (Continued)

Dr. Duvall presented the following recommendation from the College of Nursing:

Effective with the class entering the Baccalaureate Program in August 1974 a minimum grade of "C" will be required in all nursing courses.

No action on the recommendation was taken by the Council. Dean Green will appoint a committee to consider the request and make a recommendation to the Council.

Approval of the Council was given to the following policy:

Elective Credit and Eligibility for Course Enrollment for Undergraduates

The College and the Department in which a student is enrolled determine what courses a student may use for elective credit toward an undergraduate degree. The College and the Department in which a course is taught determine the eligibility for enrollment in a course.

DANFORTH FELLOWSHIPS

Inquiries about the Danforth Fellowships, to be awarded by the Danforth Foundation of St. Louis, Missouri in March 1975, are invited, according to the local campus representative, A. E. Schwartz, Dean of Graduate Studies and University Research, E-106 Martin Hall, Clemson University.

The Fellowships are open to all qualified persons of any race, creed or citizenship, single or married, who have serious interest in careers of teaching and/or administration in colleges and universities, and who plan to study for a Ph.D. in any field of study common to the undergraduate liberal arts curriculum in the United States. Applicants must be under 35 years of age at the time application papers are filed, and may not have undertaken any graduate or professional study beyond the baccalaureate. Persons must be nominated by Liaison Officers of their undergraduate institutions by November 20, 1974. The Danforth Foundation does not accept direct applications for the Fellowships. Approximately 100 Fellowships will be awarded in March 1975.

The award is for one year, and is normally renewable until completion of the degree or for a maximum total of four years of graduate study. Fellowship stipends are based on individual need, but may not exceed \$2025 for single Fellows and \$2200 for married Fellows for the academic year, plus dependency allowances for children and required tuition and fees.

GRADUATE COUNCIL MINUTES, AUGUST 7, 1974

The Graduate Council met at 10 A.M. Wednesday, August 7, 1974 in the Conference Room of E-103 Martin Hall. Dean Schwartz called the meeting to order. Those present were: Dr. Brown, Dr. Dysart, Dr. Macaulay, Dr. McLellan (for Dr. Gahan), Dr. Gauthreaux, Dr. J. R. Lambert (for Dr. Hendricks)

The minutes of the May 8, 1974 meeting were approved as distributed.

Lists of candidates for Masters and PhD degrees were distributed with marked corrections. Dean Schwartz explained that these candidates were eligible for graduation pending submission of final grades. A motion was made, seconded and passed approving these students to receive degrees at the August 10, 1974 graduation exercises.

The following course was considered and discussed for approval:

E&CE 669 - Computer Applications for Nonengineers

A motion was made and seconded to approve this course. After discussion, the motion was withdrawn until further consultation with the Department of Electrical and Computer Engineering.

A motion was made, seconded, and passed to adjourn.

FACULTY RESEARCH COMMITTEE GRANT APPLICATIONS

Proposals for Faculty Research Committee grants should be in the Office of University Research (E-107 Martin Hall) not later than November 1, 1974. Application forms may be secured in the Office of University Research. Only proposals using the Faculty Research Committee application form will be considered by the committee.

The committee makes awards to new faculty members initiating research, to faculty members initiating research in a new area, and to faculty members in areas where other sources of support are inadequate or non-existent.

FACULTY SENATE PRESIDENT HAS TELEPHONE

A telephone number 656-2456 has been assigned to the President of the Faculty Senate, Dr. C. R. Dillon, and will be used by succeeding Presidents of the Senate.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

W. David Mulkey (Res Asst) and James C. Hite (Assoc Prof) are authors of a paper entitled, "An Input-Output Analysis of Energy Use by South Carolina Agriculture," presented at the annual meetings of the American Agricultural Economic Association, Texas A&M University, College Station, on Aug. 20. Steve Pettigrew (Grad Res Asst) presented the paper.

James C. Hite addressed the annual Convention of the Florida Association of Conservation District Supervisors in Tallahassee on Aug. 22. His topic was "The Political Economy of Land-Use Policy."

J. M. Stepp (Alumni Prof) participated by invitation in the work of a special task force on rural development in St. Louis, Mo., Sept. 15-17, sponsored by the Council on Agricultural Science and Technology at the request of the Chairman of the U.S. Senate Subcommittee on Rural Development.

J. Edwin Faris became head of the Department on Oct. 1, when he moved to Clemson from Pullman, Wash., where he occupied the same position at Washington State University. Dr. Faris and his family, wife and two daughters, are living at 105 Lakeside Court in Clemson.

AGRICULTURAL EDUCATION

R. E. Linhardt (Asst Prof) has been recently named as Southern Region Editor for the Agricultural Education Magazine.

R. E. Linhardt has been elected Chairman of the Agricultural Section, Southern Agricultural Education Conference for 1974-75.

R. E. Linhardt addressed the Thursday morning session of the Agricultural Conference held at Winthrop College on Aug. 7-9. His topic was on the Occupational Safety and Health Act. Dr. Linhardt also addressed the Home Economics Section on the same topic.

CHEMISTRY

Donald C. Beer (Asst Prof) has been awarded an American Chemical Society - Petroleum Research Type G grant for \$9000 over a three year period.

CIVIL ENGINEERING

H. W. Busching (Assoc Prof and Hd) and R. M. Craven (Prof of Home Econ) will act as directors of a project calling for university personnel to provide support in both housing planning and in preparation of information which describes to prospective buyers various facets involved in home purchasing. The contract is for two years and is in the amount of \$46,096. Awarded to the Clemson University Housing Institute by the South Carolina Housing Authority, the project will be administratively housed in the College of Engineering, but will include participation from the Colleges of Architecture, Engineering, and Agriculture.

COLLEGE OF ENGINEERING

The College of Engineering announces the appointment of Eugene H. Bishop as head of the Department of Mechanical Engineering. Dr. Bishop, formerly head of the Department of Mechanical Engineering at Montana State University, received his bachelor's degree from Mississippi State University and his doctorate from the University of Texas.

For the past ten years, Dr. Bishop has been active in research in the area of natural convection heat transfer in enclosed spaces. Over fifteen articles reporting on the results of his research have been published in national and international heat transfer journals. His research group at Montana State University was recognized as the leader in fundamental studies of confined natural convective flows.

G. L. Rainey (Visit Prof) has joined the College as a visiting professor for 1974-75. Professor Rainey is on sabbatical leave from Purdue University where he holds the rank of Professor of Electrical Engineering and Electrical Engineering Technology. Professor Rainey has expertise in individualized instruction and will be assisting college faculty in this increasingly important area. Additionally, he will assist the Engineering Technology program within the college.

CONTINUING ENGINEERING EDUCATION

A short course entitled, "Welding Metallurgy and Non-Destructive Testing," will be held on the Clemson University campus from Oct. 14-18. The course is sponsored by Materials Engineering of the Division of Interdisciplinary Studies of the College of Engineering. Instructors in the course will be J. S. Wolf (Assoc Prof, Materials Engr) and A. M. Weinstein (Assoc Prof, Bioengr and Materials Engr). The course is being taught at the request of the members of the Southeastern Electric Exchange and participation is through invitation from this group.

A short course for Refractory Manufacturers will be taught by the faculty of the Department of Ceramic Engineering during the week of Oct. 7-11. Approximately 30 representatives from the ceramic industries from throughout the United States are expected to participate in the course. Course chairman is G. C. Robinson (Prof and Hd, Ceramic Engr). Instructors in the short course will be W. W. Coffeen (Assoc Prof), C. C. Fain (Prof), H. G. Lefort (Assoc Prof), H. H. Wilson (Prof), all in the department of Ceramic Engineering.

The department of Ceramic Engineering will be host to the 20th Annual Plant Operators Forum. The Forum is now hosted annually by Clemson University and each year is participated in by over 300 of the engineering and management staff of brick and tile manufacturing plants from throughout the United States. The participants will arrive on the Clemson University campus on Oct. 13 and the Forum will conclude on Wednesday, Oct. 16.

The above courses are administered through Continuing Engineering Education.

COLLEGE OF NURSING

Mary Wagner (Asst Prof) presented a paper, "Nursing Care to Prevent Contracture Deformities in Burn Injuries," at the meeting of the Fourth International Congress for Burn Injuries, Buenos Aires, Argentina, on Sept. 17.

In Dec. 1974, May and June, 1975, Professor Wagner will offer Workshops for Emergency Room Care Nurses who are located in small rural hospitals. This project is sponsored by the College of Nursing and funded through a grant from the Department of Health, Education and Welfare.

DIVISION OF INTERDISCIPLINARY STUDIES

Allan M. Weinstein (Asst Prof) presented an invited paper entitled: "Physical Properties of Polymethylmethacrylate" on Sept. 20 to the South Carolina Orthopaedic Association at Hilton Head.

F. W. Cooke (Assoc Prof and Hd) is the program director of a \$10,000 grant from the South Carolina Regional Medical Program to evaluate the feasibility of a bioengineering center for the state, to be located at Clemson. The one year grant will provide assistance in developing a reasonable response to the need for such a center. The decision making process will involve interviews with various medical units around the state and nation in an attempt to develop a center mission and the advisability of undertaking such a mission.

ENGLISH

Barry Hannah (Assoc Prof) has an article, "Story of a Writer," included in the Doubleday anthology, Intro #6, appearing this month.

FOOD SCIENCE

D. E. Turk (Assoc Prof) presented a paper, "Coccidiosis and Intestinal Absorption of Phosphorus" to the 63rd annual meeting of the Poultry Science Association at the University of West Virginia, Morgantown, on Aug. 7.

D. M. Henricks (Assoc Prof) presented a paper entitled, "Estrous Control Using PGF_{2a} - Effect on Gonadal Hormones," at the Society of Animal Science, Aug. 1.

J. J. Jen (Assoc Prof) visited the Horticultural Crops Research Institute of USDA at Beltsville, Md. and presented a seminar entitled, "Pigment Systems in Ripening Tomatoes," on July 22-23.

J. H. Mitchell, Jr. (Prof) is serving as President of the South Carolina Institute of Chemists which met jointly with the North Carolina Institute of Chemists in Asheville, N. C. on Sept. 21. Dr. Jack Raven, Regional Administrator, Environmental Protection Agency will be the banquet speaker.

GEOLOGY

Villard S. Griffin, Jr. (Assoc Prof) has just published "Geology of the Walhalla Quadrangle," Oconee Co., S.C.: South Carolina State Development Board, Division of Geology, MS-19, 53 p. (1:24,000 scale maps), 1974.

HISTORY

James E. Sargent (Asst Prof) has completed an Oral History for Columbia University with Wilbur J. Cohen, former Secretary of Health, Education and Welfare under President Johnson.

HORTICULTURE

A. J. Lewis (Instr) presented the paper, "NIA 10637 as a Chemical Pruning Agent for *Ilex crenata* 'Hetzi'," at the Southern Nurseryman's Association Research Workers Conference recently held in Atlanta.

LANGUAGES

Edwin Arnold (Instr in German) spent the academic year 1973-74 on leave as Exchange Teacher of English in the Gymnasium of Nabburg, West Germany. While there he participated in two Goethe Institutes in Berlin and Constance under auspices of the Fulbright Program.

Edwin Arnold has published an article, "A Foreign Language Vocational Opportunities Guidance Center," in Bulletin of the Association of Departments of Foreign Languages.

MECHANICAL ENGINEERING

E. Harry Law (Assoc Prof) has been awarded a one year contract for \$69,784 from the Transportation Systems Center of the U.S. Department of Transportation. The project is entitled, "Engineering Data on Rail System Dynamics." Dr. Law is Program Director and Drs. Neil K. Cooperrider and J. Karl Hedrick of Arizona State University are Co-Principal Investigators. Carl Malstrom, Manager of the Engineering Computer Laboratory at Clemson, will act as a special consultant for the project.

MECHANICAL ENGINEERING (Continued)

D. W. Cott (Asst Prof) has been awarded a \$19,393 contract by Duke Power Company. Also involved in the project are R. C. Harshman (Prof) and F. C. Alley (Prof) of the Department of Chemical Engineering. The work involves the technical and economic evaluation of several possible systems which could be employed as retrofit modifications to existing coal-fired power stations, to allow them to operate in a cycling mode once nuclear power stations take on the base load.

PHYSICS AND ASTRONOMY

A. L. Laskar (Assoc Prof) presented a seminar on "Ionic Transport Processes in Alkali Azides," at Picatinny Arsenal, Dover, N. J. on Aug. 15. He also participated in the international conference on "Low Temperature Diffusion and Application to Thin Films," held at IBM, Yorktown Heights, Aug. 12-14.

Beverly B. Bookmyer (Assoc Prof) is giving a series of lectures, entitled "A Tour of Our Universe," at a workshop for in-service high school teachers in the Greenville area. The lectures were presented Sept. 12, 19, 26 and the last one will be given Oct. 17.

R. C. Turner (Asst Prof) will be conference chairman for the Southeastern Magnetic Resonance Conference which will be held in Room 101 Kinard Laboratory from 9:00 a.m. to 5:00 p.m., Oct. 3-4.

PSYCHOLOGY

The Department of Psychology has entered into a contract with the Anderson-Oconee-Pickens and the Greenville Area Mental Health Centers to evaluate the effectiveness of treatment approaches, primarily involving the new child and adolescent services of the Centers. The contract is renewable on a yearly basis. Principal evaluators are David Senn (Assoc Prof) and David Marx (Asst Prof).

John Vacher (Asst Prof) served as a staff member at a two-week workshop on the Personalized System of Instruction (PSI) at the University of Alabama, Aug. 12-23.

Bernard Caffrey (Assoc Prof and Hd), Spurgeon Cole (Assoc Prof), David Senn (Assoc Prof), David Marx, and L. Berger (Asst Prof) presented a symposium titled, "Integrating Professional Programs in a Traditional Undergraduate Psychology Curriculum," at the convention of the American Psychological Association in New Orleans, Aug. 30-Sept. 3.

RECREATION AND PARK ADMINISTRATION

Gordon E. Howard (Assoc Prof) was one of three recipients of the first Governor's Physical Fitness Award. He was recognized for his ". . . outstanding efforts to motivate and inspire our citizens to participate in physical fitness activities," through work associated with: the RPA department, the Clemson Outing Club and the Sierra Club.

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

1. Administration-Faculty-Student Council. This council is responsible for the consideration of areas of common concern and mutual interest to the student body, the faculty, and the administration for the benefit and improvement of the University community.

(Chairperson to be elected)

J. B. McDevitt (V-Pres for Executive Affairs, ex officio)

E. H. McCarter (Bus & Fin) 1975

M. N. Lomax (Stu Affairs) 1975

G. M. Moore (Development) 1975

C. R. Dillon (Pres, Fac Sen) 1975

K. E. Carpenter (V-P, Fac Sen) 1975

L. T. Fitch (Chm, Adm & Schol Comm of Fac Sen) 1975

H. F. Qualls (Undgrad Stu) 1975

T. E. Skelton, Jr. (Ungrad Stu) 1975

R. G. Merrill (Grad Stu) 1975

2. Administrative Council. This council recommends business and non-academic personnel policy to the President.

M. A. Wilson (Chairperson)

R. C. Edwards (President)

Victor Hurst (V-Pres for Acad Aff)

W. T. Cox (V-Pres for Stu Aff)

J. B. McDevitt (V-Pres for Exec Aff)

S. G. Nicholas (V-Pres for Dev)

C. R. Dillon (Pres, Fac Sen)

E. H. McCarter (Financial Analyst)

M. E. Barnette (Budget Director)

T. N. Hinton (Dir of Accounting)

J. N. Wilson (Dir of Purchasing)

J. B. Gentry (Dir of Personnel)

H. H. Hill (Dir of Auxiliary Ent)

R. M. Rochester (Dir of Phys Plant)

3. Affirmative Action Committee.

This committee advises the affirmative action officer on matters relating to equal employment opportunity and the affirmative action program.

Julia B. Taylor (Acad Affairs, Chairperson)

Patricia O. Seitz (Acad Aff) 1975

Horace O. Gibson (Bus & Fin) 1975

Norma S. Williams (Stu Aff) 1975

Herbert W. Busching (Acad Aff) 1976

Elizabeth S. Lyles (Bus & Fin) 1976

Horace D. Harby (Dev) 1976

Joseph H. Adair (Acad Aff) 1977

Henry E. Vogel (Acad Aff) 1977

Lawrence E. Reid (Bus & Fin) 1977

Frank Mauldin (Stu Aff) 1977

S. M. Willis (Affir Action Coord for Academic Area, ex officio)

Ray L. Thompson (Affir Action Coord for Non-Academic Area, ex officio)

E. N. Tyndall (Affir Action Officer, ex officio)

4. Archives Committee. This committee advises on all policies concerning the University archives.

R. S. Lambert (Chairperson)

R. S. Saunders, Jr. (Hist) 1975

H. R. Holman (Engl) 1976

J. E. Tuttle (Pol Sci) 1977

C. W. Triche, III (Fac Sen) 1975

M. A. McKeown (Undgrad Stu) 1975

W. J. Eng (Grad Stu) 1975

J. W. G. Gourlay (Dir of Library, ex officio)

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

5. Athletic Council. This council recommends all policy concerning inter-collegiate athletics to the Vice President for Student Affairs.

K. N. Vickery (Chairperson)

J. V. Brawley, Jr. (Math)	1975
T. D. Efland (Text)	1975
E. B. Rogers (Agri Engr)	1975
R. C. Harshman (Chem Engr)	1976
J. V. Reel (Hist, Secretary)	1977
C. H. Sawyer (Engl)	1977
C. R. Dillon (Pres, Fac Sen)	1975
J. C. Rivers III (Pres, Stu Sen)	1975
S. L. Gough (Pres, Block "C")	1975
L. V. Starkey (Pres, Alumni Assn)	
T. C. Breazeale, Jr. (Immed Past Pres of Alumni Assn)	
L. F. Holmes (President of IPTAY)	
T. C. Atkinson, Jr. (Immed Past Pres of IPTAY)	

6. Audio-Visual Committee. This committee advises the Vice President for Development on the audio-visual needs and programs of the University.

(Chairperson to be elected)

J. C. Hubbard (Text)	1975
M. W. Jutras (Agron & Soils)	1975
B. P. Watkins (Voc Educ)	1975
E. L. Wall (Lang)	1976
O. S. Hipps (Nurs)	1976
Samuel Wang (Arch)	1976
R. P. Ashworth (Botany)	1977
D. D. Moyle (Interdis Stu)	1977
C. R. White (RPA)	1977
R. D. Riley (Undgrad Stu)	1975
P. K. Owen, Jr. (Grad Stu)	1975
W. H. Durham (Dir of Comm Center, ex officio)	

7. Bicentennial Committee. This committee will make recommendations as to how Clemson University can most appropriately participate in the celebration of the South Carolina American Revolution Bicentennial.

S. M. Willis (Chairperson)

G. U. Bennett (Student Affairs)	
E. H. McCarter (Business & Finance)	
M. C. Long (Development)	
R. M. Frye (Academic Affarrs)	
C. H. Sawyer (Academic Affairs)	
L. T. Fitch (Academic Affairs)	

8. Computer Advisory Committee. This committee advises the Dean of Graduate Studies and University Research on needs of the Computer Center.

R. J. Knapp (Sociology)	1975
J. C. Peck (Math)	1975
M. M. Wagner (Nurs)	1975
J. S. Lytle (AgEcon & RurSoc)	1976
C. R. Mitchell (Arch)	1976
S. L. Buckner (Elem & Sec Educ)	1976
W. W. Menke (Ind Mgmt)	1977
A. E. Miller (Forestry)	1977
M. L. Wolla (Elec & Comp Engr)	1977
K. N. Vickery (Adm & Reg)	1975
V. R. Harrell (Bus & Fin)	1975
J. L. Strom (Development)	1975
C. A. DeWitt (Undgrad Stu)	1975
C. P. Monaghan (Grad Stu)	1975
M. C. Palmer (Computer Center, ex officio)	

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

9. Disciplinary Committee. This committee is vested by the Board of Trustees with the authority to take action in certain disciplinary matters that have not been delegated to the student body.

C. R. Dillon (Pres, Fac Sen) 1975
 M. T. Brandt (Fac Sen) 1975
 B. R. Ingram (Faculty) 1975
 J. C. Rivers III (Pres, Stu Sen) 1975
 R. Brantley (Pres, Stu Body) 1975
 S. A. Pool (Undgrad Stu) 1975

10. Educational Council. This council recommends academic, research, and extension policy to the President.

R. C. Edwards (Chairperson)
 Victor Hurst (Acad Affairs)
 M. A. Wilson (Bus & Fin)
 W. T. Cox (Student Affairs)
 J. B. McDevitt (Exec Affairs)
 S. G. Nicholas (Development)
 C. B. Green (Undergrad Studies)
 A. E. Schwartz (Grad Studies and Univ Research)
 S. M. Willis (Univ Ext)
 K. N. Vickery (Adm & Reg)
 J. W. G. Gourlay (Library)
 C. R. Dillon (Fac Sen)
 L. P. Anderson (Agri Sciences)
 H. E. McClure (Arch)
 H. F. Landrith (Educ)
 L. C. Wilcox (Engr)
 W. H. D. McGregor (For & Rec Res)
 W. D. Trevillian (IM&TS)
 H. M. Cox (Liberal Arts)
 G. Labecki (Nursing)
 H. E. Vogel (PMBS)
 M. C. Long (Public Rel, ex officio)
 E. N. Tyndall (Secretary)

11. Energy Conservation Committee. This committee formulates ideas and acts as a clearinghouse for ideas from anyone in the University family about reducing energy consumption.

R. M. Rochester (Chairperson)
 D. W. Bradbury (Mech Engr)
 F. J. Keller (Physics)
 D. W. Lyons (Text)
 R. G. Merrill (Text)
 Martin Gilchrist (Res Halls)
 R. W. Smith (Athletics)
 R. L. Vickery (Student)
 B. C. Clark (Student)

12. Energy Conservation Implementation and Monitoring Committee. The purpose of this committee is to develop policies and procedures and to furnish technical advice in implementing the approved energy conservation ideas generated in the Energy Conservation Committee.

R. M. Rochester (Chairperson)
 A. L. Beyerlein (Chem & Geol)
 R. W. Eck (Grad Stu, Civil Engr)
 J. L. Edwards (Engr)
 E. B. Rogers (Agri Engr)
 W. C. Whitten, Jr. (Econ)
 C. C. Turner (Stu Affairs)
 L. O. Clamp, Jr. (Student)
 M. E. Dease (Student)

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

13. Extension Council. This council advises the Dean of University Extension on all policies and regulations pertaining to the total University extension program.

S. M. Willis (Chairperson, Ex officio)

N. R. Bauld (Engr Mech)	1975
G. D. Kessler (For)	1975
F. T. Simon (Text)	1975
W. C. Capel (Sociology)	1976
S. L. Parks (Nurs)	1976
Eugene Park (Math)	1976
G. R. vonTungeln (AgEcon & RurS)	1977
V. S. Hodges (Arch)	1977
D. H. Pate (Ind Educ)	1977
J. B. Taylor (Pres, Ext Senate)	
C. N. Nolan (Pres, Ext Spec Assn)	
L. Goldberg (Pres, Ext Home Econ Assn)	
H. D. Marett (Pres, Ext County Agents' Assn)	

14. University Research Council. This council advises the administration on all policies, procedures, and regulations affecting sponsored and unsponsored research on the campus.

A. E. Schwartz (Chairperson, Ex officio)

G. C. Means (Arch)	1975
O. J. Jacobus (Chem & Geol)	1975
L. H. Blanton (Agri Educ)	1975
E. M. Coulter (Pol Sci)	1976
Gwendolen Lee (Nurs)	1976
R. W. McLellan (RPA)	1976
B. L. Edge (Civil Engr)	1977
B. M. Shepard (Ent & Econ Zool)	1977
D. W. Lyons (Text)	1977
G. S. Ragan (Undgrad Stu)	1975
H. E. Prince (Undgrad Stu)	1975
J. C. Zimmerman (Grad Stu)	1975
R. W. Henningson (Sec, ex officio)	

15. Fine Arts Series Committee. This committee plans, coordinates, and publicizes the annual program of University concerts, films, lectures, plays, and art exhibits.

J. H. Butler (Chairperson)

W. B. Barlage (Chem Engr)	1975
J. C. Hubbard (Text)	1975
W. E. West (Ind Educ)	1975
R. W. Hill (Engl)	1976
R. E. Schoenike (For)	1976
M. A. Kelly (Nurs)	1976
A. R. Mazur (Hort)	1977
R. D. England (Arch)	1977
J. R. Manson (Phys & Astron)	1977
E. H. Riggs (Undgrad Stu)	1975
N. R. Bocanegro (Undgrad Stu)	1975
A. L. Alston (Undgrad Stu)	1975
A. M. Cooney (Grad Stu)	1975
H. M. Cox (Lib Arts, ex officio)	

16. Graduate Council. All policies and regulations affecting graduate curricula and requirements leading to graduate credits, certification, and degrees shall be approved by this council and recommended to the Dean of the University.

A. E. Schwartz (Chairperson, Ex officio)

B. C. Dysart (ESE)	1975
H. H. Macaulay (Econ)	1975
Geraldine Labecki (Nursing)	1975
L. W. Gahan (RPA)	1976
J. H. Mandel (Engl)	1976
S. A. Gauthreaux (Zool)	1976
D. M. Henricks (Food Sci)	1977
J. H. Rodgers (Agri Educ)	1977
E. L. Falk (Arch)	1977
W. F. Lyle (Grad Stu)	1975
W. T. Lauten (Grad Stu)	1975

(See page 29 for alternates)

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

17. Honors Program Council. This council recommends policy, including curricula and admission standards, concerning the Honors Program to the Dean of Undergraduate Studies.

C. H. Sawyer (Chairperson)

W. A. Phillips (Arch)	1975
W. C. Whitten, Jr. (Econ)	1975
J. H. Adair (Elem & Sec Educ)	1975
M. W. Dixon (Mech Engr)	1976
C. A. Belcher (Nurs)	1976
D. H. Van Lear (For)	1976
T. G. Proctor (Math)	1977
J. C. Hite (AgEcon & RurSoc)	1977
J. M. Melton (Lang)	1977
E. J. Graef (HPC Student)	1975
E. R. Stevens (HPC Student)	1975
C. B. Green (Undgrad Studies)	
K. N. Vickery (Adm & Reg)	

18. Laboratory Animal Welfare Committee. This committee functions as the evaluation committee on the care and treatment of laboratory animals and advises the Dean of the University in regard to the animal and animal facility policies of the University.

R. W. Henningson (Chairperson)

S. L. Moore (State Veterinarian)	
B. W. Sauer (Engr)	1975
R. F. Borgman (Food Science)	1976
R. F. Walker (Zool)	1977
Undgrad Student Designee	1975
C. M. Hodges (Grad Stu)	1975

19. Landscape and Site Development Committee. This committee formulates and recommends to the administration long-range goals for the landscape and site development of the university campus.

J. C. Carey (Supt of Grounds,
Chairperson)

R. M. Rochester (Dir of Phys Plant)	
D. J. Boyer (Supt of Plan & Engr)	
J. L. Strom (Dir of Planning and Corp Relations)	
R. D. Eflin (Campus Master Planner)	
H. J. Grove (Fac Senate)	1975
D. M. Young (Student)	1975

20. Library Committee. This committee advises the Director of the Library on the determination of needs of the library, the formation of library policies, and on such other matters as may be referred to it by the Director.

H. D. Adams (Hist, Chairperson)	1976
O. S. Hipps (Nurs)	1975
U. A. Holahan (Ext)	1975
G. E. Howard (RPA)	1975
K. J. Russo (Arch)	1976
F. R. Gray (Ind Mgmt)	1976
D. R. Helms (Zool)	1977
E. F. Olive (Elem & Sec Educ)	1977
T. T. Yang (Mech Engr)	1977
April Baker (Undgrad Stu)	1975
B. M. Stone (Grad Stu)	1975
J. W. G. Gourlay (Dir of Library, Sec, ex officio)	

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

21. Management Information Systems Coordinating Board (MIS). This board will supervise the development of administrative data systems and determine the priority of systems to be programmed and implemented.

R. C. Edwards (Chairperson and
Acting Director)

M. A. Wilson (Business & Finance)

A. E. Schwartz (Academic Affairs)

J. L. Strom (Development)

K. N. Vickery (Student Affairs)

A. D. Hickman (Dir of Administrative
Prog Services)

M. C. Palmer (Dir of Comp Center)

22. Medical Technology Curriculum Committee. This committee will counsel and advise with undergraduate students enrolled in this curriculum and make recommendations to the Undergraduate Council about the curriculum.

M. B. Bishop (Chairperson)

R. K. Guthrie (Microbiology)

G. B. Park (Chem & Geol)

23. Names for Campus Buildings and Roads Committee. The function of this committee is to recommend to the administration and the Board of Trustees appropriate names for buildings and streets.

H. H. Macaulay (Chairperson--
on leave)

T. L. Senn (Chairman Pro Tem)

H. N. Cooledge, Jr.

J. L. Edwards

H. H. Hill

J. W. LaGrone

E. M. Lander

S. G. Nicholas

E. S. Olson

24. Patent Committee. This committee makes recommendations to the President concerning all University patent matters in accord with the Patent Policy in the Faculty Manual.

M. A. Wilson (Chairperson)

R. D. Hatcher (Chem & Geol) 1975

C. E. Hood (Agri Engr) 1976

E. B. Rogers (Agri Engr) 1976

R. A. Jobes (AgEcon & RurSoc) 1977

T. L. Purcell (Undgrad Stu) 1975

R. E. Brantley (Grad Stu) 1975

M. E. Barnette (Bus & Fin, ex officio)

T. D. Efland (Text, ex officio)

O. B. Garrison (Exp Sta, ex officio)

S. G. Nicholas (Dev, ex officio)

25. Planning Council. This council advises the V-Pres. for Development on plans and proposals pertaining to the development of programs for the enhancement of the academic & cultural life of the University community.

S. G. Nicholas (Chairperson)

C. H. Sawyer (Engl) 1975

A. S. Prevost (Nurs) 1975

A. S. Tombes (Zool) 1975

C. E. Hood (Agri Engr) 1976

D. L. Collins (Arch) 1976

W. O. Corder (Elem & SecEduc) 1976

S. C. Anand (Civil Engr) 1977

H. J. Grove (RPA) 1977

R. D. Elliott (Econ) 1977

E. H. McCarter (Bus & Fin) 1975

C. R. Dillon (Pres, Fac Sen) 1975

Reginald Brantley (Pres, Stu Body) 1975

J. C. Rivers III (Pres, Stu Sen) 1975

C. L. Watlington (Chairperson
of GSA) 1975

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

26. Pre-Professional Health Curricula Committee. This committee will counsel and advise with undergraduate students enrolled in the curricula and make recommendations to the Undergraduate Council concerning these curricula.

F. A. Burtner (Sociology,
Chairperson)

J. H. Hobson (Chem & Geol)

M. J. B. Paynter (Microbiology)

P. A. Steiner (Physics & Astron)

R. F. Walker (Zool)

F. W. Cooke (Interdis Studies)

27. Pre-Veterinary Medicine Curriculum Committee. This committee will counsel and advise with undergraduate students enrolled in this curriculum and make recommendations to the Undergraduate Council regarding this curriculum.

J. E. Jones (Poultry Science,
Chairperson)

C. E. Boyd (State Veterinarian)

J. B. Cooper (Poultry Science)

J. F. Dickey (Dairy Science)

J. C. McConnell, Jr. (Animal Science)

R. L. Hays (Zoology)

J. M. Vacher (Psychology)

28. Protection of Human Subjects

Committee. This committee reviews all University projects and activities that involve human subjects and insures that the rights and welfare of subjects are adequately protected, that the risks to subjects are outweighed by potential benefits, and that the informed consent of subjects is obtained by methods that are adequate and appropriate.

R. W. Henningson (University Research,
Chairperson)

T. C. Benning, Jr. (American Enka Co)

F. W. Cooke (Interdis Studies)

J. E. Hair (Student Health Serv)

D. J. Senn (Psychology)

W. P. Williams, Jr. (Food Science)

29. Safety and Fire Prevention Committee. This committee advises the President through the University Safety Coordinator and other appropriate officials on safety policies and programs.

J. N. Beard (Chem E, Chairperson) 1976

J. R. Salley (Chem & Geol) 1975

J. J. Porter (Text) 1975

N. R. Page (Ag Chem Serv) 1976

D. E. Turk (Poul Sci) 1977

E. H. McCarter (Bus & Fin) 1975

C. W. Roberts (Fac Sen) 1975

J. A. Stanley (Phys Plant) 1975

J. M. Hanna (Phys Plant) 1975

J. M. Harden (Undgrad Stu) 1975

H. C. Eason (Grad Stu) 1975

W. E. Berry (Univ Safety Coord)

J. B. McFadden (Athl Dept)

J. E. Hair (Stu Health Serv)

COMMITTEES AND COUNCILS OF THE UNIVERSITY 1974-75

30. Schedule Committee. This committee develops the master schedule of courses taught at the University.

K. N. Vickery (Chairperson, ex officio)

A. R. Abernathy (ESE)

H. D. Adams (History)

R. P. Ashworth (Botany)

W. L. Ball (E & CE)

J. H. Bond (Microbio)

L. H. Brown (Arch)

B. M. Cool (Forestry)

J. H. Couch (Ind Engr)

C. C. Davis (Ind Mgmt)

R. C. Grant (Aerospace Stu)

R. C. Harshman (Chem E)

J. A. Hash (Ag Educ)

J. C. Harden (Math)

L. L. Henry (Engl)

J. H. Higgins (Nurs)

W. G. Hudson (Mech Engr)

B. R. Ingram (Zool)

S. B. Ingram (Undgrad Stu)

J. W. LaGrone (Math)

A. B. Laughlin (Undgrad Stu)

H. G. Lefort (Cr Engr)

C. M. McGee (Engl)

C. M. McHugh (Engr Serv)

W. R. Mattox (Adm & Reg)

W. P. Merritt (Grad Stu)

D. D. Moyle (Interdis Stu)

R. F. Nowack (Civil Engr)

F. L. Roberts (Civil Engr)

E. B. Rogers (Ag Engr)

J. R. Salley (Chem)

C. R. Smith (Ind Mgmt)

R. C. Turner (Phys & Astron)

J. V. Walters (Text)

J. K. Zimmerman (Biochem)

31. Scholarships & Awards Committee.

This committee selects students for University scholarships and awards. It also has the responsibility for planning and coordinating the annual University Honors and Awards Day.

C. H. Sawyer (Chairperson)

A. R. Recoulley (Engl) 1975

C. B. Hubbard (Nurs) 1975

P. A. Steiner (Phys & Astron) 1975

S. S. Melsheimer (Chem E) 1976

T. V. Wilson (Agri Engr) 1976

J. L. Stevenson (RPA) 1976

P. C. Caley (Ind Educ) 1977

S. H. Brown (Ind Mgmt) 1977

W. A. Phillips (Arch) 1977

D. R. Whitesides (Phi Kappa Phi) 1975

J. L. Stonemetz (Phi Eta Sigma) 1975

K. N. Vickery (Adm & Reg)

G. E. Coakley (Assoc Dean of Students)

S. G. Delony (Assoc Dean of Students)

A. M. Bloss (Dir of Financial Aid)

M. G. Carmichael (Fin Aid, Secretary)

32. Student Relations Committee. This committee's function is to hear academic grievances by students against faculty members and attempt to solve those grievances.

O. J. Jacobus (Fac Sen,
Chairperson) 1975

K. E. Carpenter (V-Pres Fac Sen) 1975

P. R. Jackson (V-Pres Stu Body) 1975

R. M. Sprott (Stu Sen) 1975

M. P. Coxé (Stu Sen) 1976

B. B. Bookmyer (Fac Sen) 1976

S. G. Delony (Student Affairs)

COMMITTEES AND COUNCIL OF THE UNIVERSITY 1974-7533. Traffic and Parking Committee.

This committee advises the Vice-Pres. for Executive Affairs on all matters concerning traffic and parking.

E. H. McCarter (Chairperson)

J. E. Clark (Civil Engr)

J. W. Pace (Stu Affairs)

J. W. Weeden (Security)

J. L. Strom (Dir of Planning &
Corporate Relations)

R. D. Eflin (Campus Master Planner)

R. W. Smith (Athl Dept)

B. K. Webb (Agri Engr) 1975

O. J. Jacobus (Fac Sen) 1975

E. M. Gouge (Grad Stu) 1975

Chairperson of Traffic & Grounds
Committee of Student Senate 1975

J. B. McDevitt (Exec Aff, ex officio)

34. Undergraduate Council. All policies and regulations affecting undergraduate curricula and requirements leading to undergraduate credits and degrees shall be approved by this council and recommended to the Dean of the University.

C. B. Green (Chairperson, ex officio)

L. W. Baxter (PlPath & Physiol) 1975

L. H. Brown (Arch) 1975

I. C. Briscoe (El & Sec Educ) 1975

R. W. Gilchrist (E & CE) 1976

B. M. Cool (For) 1976

E. A. Vaughn (Text) 1976

C. O. Caskey (Engl) 1977

G. A. Tanner (Nurs) 1977

J. C. Fanning (Chem & Geol) 1977

V. I. Jonkoff (Undgrad Stu) 1975

J. L. Stonemetz (Undgrad Stu) 1975

K. N. Vickery (Adm & Reg, ex officio)

35. Vending Machine Committee. This committee will be responsible for reviewing requests for allocation of funds from the vending machine operations clearing account and making recommendations to the Vice Pres. for Business & Finance and the President.

M. A. Barnette (Chairperson)

W. T. Cox (V-Pres for Stu Aff)

Victor Hurst (V-Pres for Acad Aff)

Reginald Brantley (Pres of Student
Body) 1975

C. R. Dillon (Pres, Fac Sen) 1975

Graduate Council Alternates

Peter Lee (Arch) 1975

J. R. Lambert (Agri Engr) 1975

J. E. Matthews (Elem & Sec Educ) 1975

B. L. Edge (Civil Engr) 1976

C. R. Smith (Ind Mgmt) 1976

J. V. Reel (Hist) 1977

G. E. Howard (RPA) 1977

G. L. Powell (Biochem) 1977

Undergraduate Council Alternates

R. J. Calhoun (Engl) 1975

Gwendolyn Lee (Nurs) 1975

D. R. LaTorre (Math) 1975

R. K. DeHaven (AgEcon & RurSoc) 1976

Peter Lee (Arch) 1976

J. H. Rodgers (Ag Educ) 1976

M. W. Dixon (Engr) 1977

L. E. Nix (For) 1977

R. V. Calvasina (Ind Mgmt) 1977

- 2 Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 3 Woman's Club: Women and Politics, 3:15 p.m., Clemson House.
- 3 Environmental Systems Engineering Seminar: Consulting Engineering -- Is It For You? Perry Holcomb of R. S. Noonan Engineering Consultants. 4:00 p.m., 302 Rhodes, open to all interested persons.
- 3-4 Sixth Southeastern Magnetic Resonance Conference, 9:00 a.m., - 5:00 p.m., 101 Kinard Laboratory. A meeting for physicists, chemists and others who are engaged in research in all areas of electron and nuclear magnetic resonance. Sponsored by the Department of Physics and Astronomy. Open to all people interested in an aspect of magnetic resonance, admission free.
- 3 Chamber Music Series: A recital by Charlotte Weaver, soprano and piano team of Lillian Harder and Alice Cash. Sponsored by the Department of Music. 8:00 p.m., Daniel Auditorium, open to the public, admission free.
- 4 Soccer: Clemson Invitational Tournament, (Howard vs. South Florida, 2:00 p.m., Clemson vs. West Virginia, 4:00 p.m.) here.
- 5 Chicken Barbecue for the Clemson-Georgia Game. Sponsored by Alpha Tau Alpha and Society for the Advancement of Agricultural Education, 10:30 a.m. - 12:30 p.m., Fike Field House, open to the public, \$2 per plate.
- 5 Football: Georgia, 1:00 p.m., here.
- 5 CDA Concert: Black Oak Arkansas. Sponsored by Central Dance Association. 8:00 p.m. Littlejohn Coliseum, open to the public.
- 5 Open House at the Clemson Alumni Center, 9:00 a.m. - 12:00 Noon.
- 5 Medical College Admission Test, 8:00 a.m., 101-M Martin Hall.
- 6 Soccer: Clemson Invitational Tournament, (South Florida vs. West Virginia, 1:30 p.m. Clemson vs. Howard, 3:30 p.m.) here.
- 6 University Union Sunday Free Flick: The General. 8:00 p.m., YMCA Theater University I.D. required, admission free.
- 7 Intramural Sports: Softball, inter-fraternity, entries close Oct. 11. Football, touch and powder puff, entries close Oct. 18. For further information, contact the Intramural Sports Office, 656-2116.
- 7 Architecture Lecture: Art and Architecture of Coventry Cathedral: Goals and Functions with Bruce Magidsohn, architectural historian, Sangamon State University. 8:15 p.m. College of Architecture, Lee Hall, open to the public, admission free.
- 7 Plant Pathology Seminar: Some Tropical Crops, Cultural Practices, and Disease Problems. Dr. E.I. Zehr and Dr. G.C. Kingsland. 12:20 p.m., 222 Long Hall.
- 8 History Club Book Discussion: Jean-Francois Revel, Without Marx or Jesus. Sponsored by the History Club, 7:30 p.m., 200 Hardin Hall, open to the public, admission free.

- 8-13 Clemson University Players: A Funny Thing Happened on the Way to the Forum, burlesque and vaudevillian comedy at its best. 8:00 p.m., Daniel Hall Auditorium, open to the public, admission free.
- 9 Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 10-12 Mountain Interstate Foreign Language Conference, sponsored by the Language Department. Daniel Auditorium and Daniel Hall, open to foreign language teachers and any interested person, nominal registration fee.
- 12 Graduate School Foreign Language Test, 101-M Martin Hall
- 12 Dental Admission Test, 8:00 a.m., 101-M Martin Hall
- 13 Soccer: Virginia, 2:00 p.m., here.
- 13 University Union Sunday Free Flick: The Mouse That Roared. 8:00 p.m., YMCA Theater, University I.D. required, admission free.
- 13-11/1 Architecture Exhibition: Bernard Freemesser. An unusual exhibit of 100 8 x 10 contact prints made with 8 x 10 cameras by Bernard Freemesser, Professor of Photography, University of Oregon. Rudolph Lee Gallery, College of Architecture. Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 14 Agronomy Seminar: Soil Microbial Degradation of Soil Amended Pesticides, Dr. W.C. Steen, EPA. Sponsored by Agronomy and Soils. 4:00 p.m., A-203 P & AS Building. Open to the public.
- 14 Russian Film: The Forty-First. Sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 14 Architecture Lecture: Relating Environments to People with M. Paul Friedberg, landscape architect, City College of New York. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 14 Plant Pathology Seminar: Can Agriculture Survive? Dr. William M. Dowler, 12:20 p.m., 222 Long Hall, open to the public.

WEPR Highlights

South Carolina Education Radio Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI, 89.3-FM, Charleston.

- 3&10 Music From The Mountains: (3) Nick Hallman, (10) Nick Hallman Encore, with Edith Card, Clemson Music Department, 12:00 Noon and 7:45 p.m.
- 4&11 Friday Lecture: Speakers from the Robert A. Taft Institute on Government seminar, 11:00 a.m.
- 5&12 Majors and Minors: Music and the Military Life, a four-part series, 10:30 p.m.
- 7,11&14 Political Science: (4,7) A Republican Looks at Congress, with Congressman Floyd Spence. (11,14) City Government, with Greenville City Manager John Dullea, with Dr. Martin Slann, Clemson Political Science Department, Wednesdays at 11:00 a.m., Saturdays at 6:30 p.m.

- 5&12 Poetry Today: (5) Edgar Allen Poe, (12) Robert Segal - the Beats and the Elders, with Dr. Robert W. Hill, Clemson English Department, 7:45 p.m.
- 4,7,11&14 Word-Go-Round: (4,7) Words from the New York Times, (11,14) Words from Time Magazine, with Herman and Mary Stuart Felder, Wednesdays at 11:30 a.m., Saturdays at 6:30 p.m.
- 4&11 Physical Science in the Real World: (4) Physics of Sound - the Phenomenon of Beats with Dr. Richard Manson, Clemson Physics Department, (11) Observations in Physics - How We See Things, 11:45 a.m.
- daily Carolina Weathervane, from Clemson Extension Service, S. C. Experiment Station and National Weather Service, featuring agricultural news, weather, recommendations and county reports, 12:15 p.m.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Vol. 14 No. 5

October 15, 1974

OCT 17 1974

INFLUENZA VACCINE CLINIC

There will be a clinic for Influenza vaccine for all University personnel and their dependents on Wednesday, October 23, 1974 from 4:00 p.m. to 6:00 p.m. This will be held in Room 101 of the Physics Building. There will be a charge of \$3.00 per person.

Award-Winning Author to Address Children's Literature Symposium

William Armstrong, author of the award-winning children's story "Sounder," will address elementary school teachers and librarians from an eight-county upstate area invited to attend the annual Children's Literature symposium here Oct. 26.

Armstrong's "Sounder" won the 1970 John Newbery medal for the most outstanding achievement in American children's literature. He was given the National School Bell Award in 1963.

"Sounder," which was made into a film in 1972 and has been translated into eight languages, was Armstrong's first fictional work for children. But his nonfiction works for children include "Barefoot in the Grass: The Story of Grandma Moses," and "The Education of Abraham Lincoln."

Armstrong's noon address will be "The Importance of Feeling in Life and Literature."

Also featured on the program will be Miss Beulah Campbell, professor of children's literature at Appalachian State University, and Dr. Alan Tiegreen, professor of art at Georgia State University.

Dr. Tiegreen, one of the few artists in the South illustrating children's books, will speak at 9:30 a.m. on illustrating works for children. He illustrated Helen Tiegreen's "Carter Rabbit," and Robert Burch's "Doodle and the Go-Cart," and is currently working on a new book by Beverly Cleary.

At 10:30 a.m. Miss Campbell will show children's literature illustrations including original drawings and paintings by Symeon Shimin for Mary Jarrell's "Knee Baby."

Three area teachers and librarians will illustrate at 11 a.m. methods for making children's books live for the elementary student.

At 1:45 p.m. Armstrong and other authors and Dr. Tiegreen will autograph copies of their works.

The symposium, sponsored by the Department of English, is open to the public. Registration is at 8:45 a.m. in Daniel Hall Auditorium.



President Edwards Observes Memorial Scholarship Plaque

Endowments For Memorial Scholarships, Awards Increase Significantly

Endowed gifts to the Clemson memorial awards and scholarships program have increased significantly since the program's formal establishment in July 1973.

At that time there were 32 endowed scholarships and 15 endowed awards. Since then, four new scholarships and five new awards representing more than \$60,000 in endowed gifts for student aid have been added.

The program provides an appropriate way to recognize and honor individuals who have been associated with the University. When an award or scholarship is establish-

ed, the donor helps determine the guidelines to be used in selecting the recipients and in administering the fund.

Memorial awards may be established through an endowed gift of at least \$2,000; memorial scholarships through an endowed gift of at least \$10,000. The annual income from the endowments provide the money for the annual awards (maximum of \$200) and scholarships (no maximum).

Plaques naming the present 36 memorial scholarships and 20 memorial awards are displayed in Sikes Hall just outside the reception area of the President's Office.

Agricultural Economics and Rural Sociology Announces New Department Head

Prof. J. Edwin Faris, a native of the state of Washington, has been named Head of the Department of Agricultural Economics and Rural Sociology, effective Oct. 1.

Faris is leaving a similar post at Washington State University to take the position. He has also served as head of the department of agricultural economics at Virginia Polytechnic Institute.

He succeeds Prof. J. W. Lanham who resigned as department head. Lanham is on leave from Clemson while serving as executive director of the Coastal Plains Regional Commission in Washington, D.C.

Faris gained interest in and knowledge of the Southeast while earning a Doctor of Philosophy Degree from North Carolina State University. He had earlier received Bachelor's and Master's Degrees from Washington State University.

His experience includes teaching and research at the University of California at Davis where he advanced from lecturer to professor in 12 years. He has wide experience under joint extension-teaching-research appointments.

Clemson Economists Receive Department of Justice Grant

The federal government will spend \$113,797 for an investigation of the wide range of costs of judicial services and for development of the best possible system for providing and paying for such services.

A team of Clemson economists, under the direction of Prof. Rodney Mabry, will begin the federally funded research Jan. 1. They will study the costs of courts, judges prosecution, indigent defense, and other judicial services in California, New York, Louisiana, Maine, and two other states.

The study will take 18 months. Mabry, three other economists and a lawyer on the Clemson faculty will work on the project. Other economists and lawyers will be consultants.

The Department of Justice announced the \$113,797 grant from its Law Enforcement Assistance Administration Monday.

Faculty Research Committee Grants Application Deadline November 1

Proposals for Faculty Research Committee grants should be in the Office of University Research (E-107 Martin Hall) not later than November 1, 1974. Application forms may be secured in the Office of University Research. Only proposals using the Faculty Research Committee application form will be considered by the committee.

The committee makes awards to new faculty members initiating research, to faculty members initiating research in a new area, and to faculty members in areas where other sources of support are inadequate or non-existent.

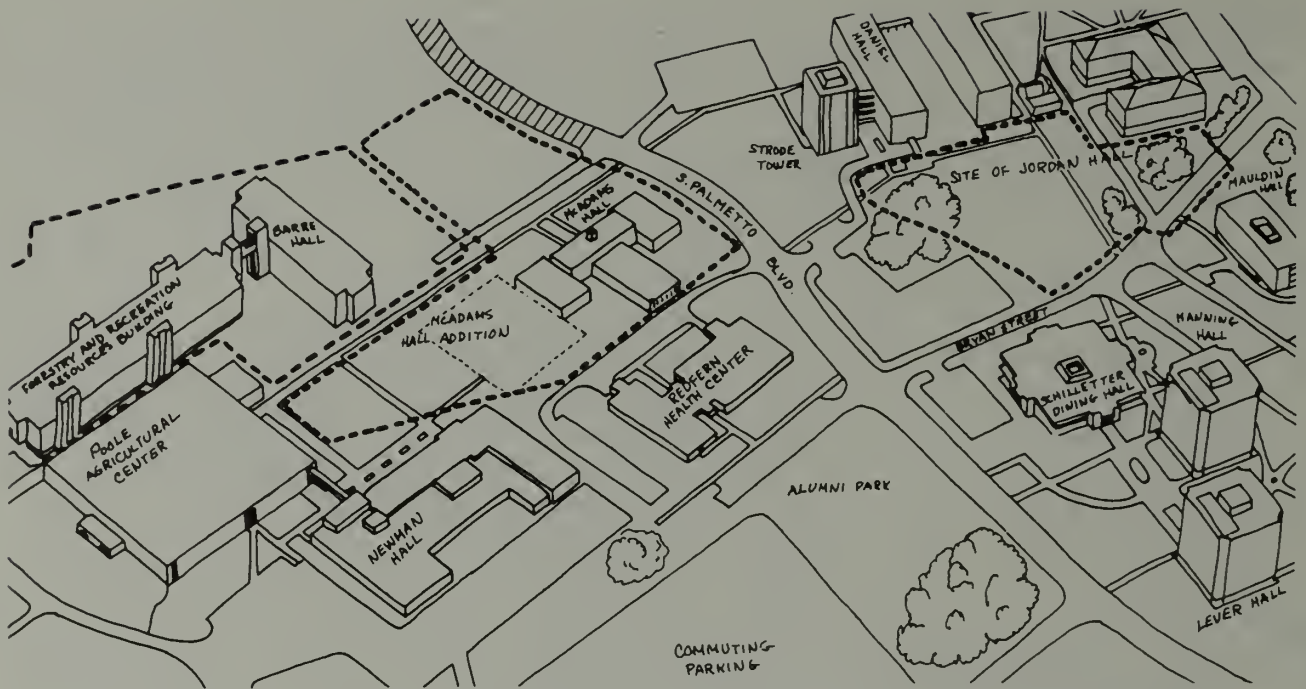
University Information Office Adds Education Editor

Coke A. Ellington, city editor of the Rock Hill Evening Herald from September 1971 through May 1974, has been named education editor for Clemson's Public Relations Department.

In his new new position Ellington will be in charge of education news services, a unit of the University Information Office responsible for producing news and feature stories about University people and activities.

Before going to Rock Hill, Ellington, 32, has served as city editor of the Anniston, Ala., Star and as city editor of the Athens, Ga., Banner-Herald. He was information officer for the 1st Signal Brigade in Vietnam in 1965-66.

A native of Moultrie, Ga., he received his bachelor and master's degrees in journalism from the University of Georgia.



Dotted lines indicate fences around construction sites.

Steps Taken To Minimize Construction Inconvenience

Additional construction on the campus will mean some added inconvenience for students and University personnel, but steps have been taken to minimize the problems.

Construction of Jordan Hall, the biological sciences building to be erected south of Long Hall, will begin soon, according to Jerry Boyer, superintendent of planning and engineering. By mid-October pedestrians will be walking around a contractor's fence on a temporary sidewalk.

The construction site will eliminate some parking and will block Bryan Street next to the east campus low-rise dorms. Drivers will be able to turn from South Palmetto Boulevard onto Bryan Street to get on the loop between the low-rises and Schilleter Hall.

Robert D. Eflin, campus master planner, said the University has compensated for

that loss of parking by expanding the parking lots at Sikes Hall and in front of Long Hall and by creating new parking spaces on South Palmetto Boulevard.

Boyer said the renovation and extension of McAdams Hall (agricultural engineering) should begin in December.

Eflin said some parking will be lost and the adjacent McGinty Mall will be closed, but pedestrians will have a walkway between the fence around this site and the fence around the current construction sites of the Agricultural Administration Building and the Forest and Recreation Resources Building.

Plans originally called for the fences to close off the area, Eflin said, but the University insisted that a fence be shifted to provide pedestrian access from the center of the campus to the Plant and Animal Science Building and Newman Hall.

Enrollment by Men and Women - Full Time and Part Time
Clemson University
First Semester 1974-75

Classification	MEN			WOMEN			TOTAL		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
1st Semester Freshman	1311	22	1333	759	30	789	2070	52	2122
2nd Semester Freshman	498	6	504	185	12	197	683	18	701
Sub-Total	1809	28	1837	944	42	986	2753	70	2823
1st Semester Sophomore	742	8	750	495	12	507	1237	20	1257
2nd Semester Sophomore	423	10	433	149	12	161	572	22	594
Sub-Total	1165	18	1183	644	24	668	1809	42	1851
1st Semester Junior	834	14	848	432	16	448	1316	30	1346
2nd Semester Junior	431	10	441	155	9	164	586	19	605
Sub-Total	1265	24	1289	637	25	662	1902	49	1951
1st Semester Senior	639	10	649	330	6	336	969	16	985
2nd Semester Senior	378	64	442	95	24	119	473	88	561
Sub-Total	1017	74	1091	425	30	455	1442	104	1546
1st Semester Five-Year	0	0	0	0	0	0	0	0	0
2nd Semester Five-Year	0	0	0	0	0	0	0	0	0
Sub-Total	0	0	0	0	0	0	0	0	0
TOTAL	5256	144	5400	2650	121	2771	7906	265	8171
Graduate-Masters Level	437	296	733	130	458	588	567	754	1321
Postgraduate	19	18	37	2	9	11	21	27	48
Non-Degree	4	4	8	0	3	3	4	7	11
Graduate-Ph.D. Level	156	41	197	10	5	15	166	46	212
TOTAL	616	359	975	142	475	617	758	834	1592
CAMPUS TOTAL	5872	503	6375	2792	596	3388	8664	1099	9763
Clemson-Furman MBA Institutes	7	122	129	0	3	3	7	125	132
	0	206	206	0	485	485	0	691	691
GRAND TOTAL	5879	831	6710	2792	1084	3876	8671	1915	10,586

Total Enrollment by Courses and Academic Classification
Clemson University
First Semester 1974-1975

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	PhD	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Agriculture (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
Agriculture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agricultural Economics	5	2	6	2	4	8	3	5	0	0	0	13	8	0	56
Agricultural Engineering	19	6	5	3	3	0	4	3	0	0	0	3	6	0	52
Agric Mech and Business	9	1	3	4	2	2	2	0	0	0	0	2	0	0	25
Agromony	11	3	4	8	7	2	3	3	0	0	0	8	0	0	49
Animal Industries	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Animal Physiology	0	0	0	0	0	0	0	0	0	0	0	2	14	0	16
Animal Science	14	14	22	10	21	14	14	10	0	0	0	10	0	0	129
Community & Rural Development	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Dairy Science	3	1	3	1	2	1	5	2	0	0	0	4	0	0	22
Economic Biology	1	2	2	0	1	2	0	0	0	0	0	0	0	0	8
Economic Zoology	2	1	2	0	4	0	1	0	0	0	0	0	0	0	10
Entomology	0	0	0	0	1	3	5	1	0	0	0	15	7	0	32
Food Science	4	3	5	3	8	4	2	3	0	0	0	0	0	0	32
Horticulture	29	8	17	17	14	14	7	11	0	0	0	13	1	0	131
Nutrition	0	0	0	0	0	0	0	0	0	0	0	16	5	0	21
Plant Pathology	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
Plant Physiology	0	0	0	0	0	0	0	0	0	0	0	0	12	0	12
Plant Science	0	0	1	1	2	0	0	0	0	0	1	0	0	0	5
Poultry Science	1	1	0	0	2	0	2	0	0	0	0	5	0	0	11
Pre-Veterinary	62	11	4	3	3	3	2	1	0	0	0	0	0	0	89
Wildlife Biology	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17
College Total	161	53	74	53	74	53	50	39	0	0	1	117	55	0	730
Architecture (Non-Degree)	0	0	0	0	1	0	0	0	0	0	2	8	0	0	11
Architecture	0	0	0	0	0	0	0	0	0	0	3	53	0	0	56
Building Construction	6	15	10	15	34	10	29	18	0	0	1	0	0	0	138
City and Regional Planning	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26
Pre-Architecture (BA)	32	18	17	9	38	14	29	14	0	0	2	0	0	0	173
Pre-Architecture	60	25	31	9	25	8	12	3	0	0	1	0	0	0	174
Visual Studies	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
College Total	98	58	58	33	98	32	70	35	0	0	9	94	0	0	585

Total Enrollment by Courses and Academic Classification

Clemson University

First Semester 1974-1975

Page Two

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	PhD	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Education (Non-Degree)	0	0	0	0	0	0	0	0	0	0	1	216	0	0	217
Education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration and Supervision	0	0	0	0	0	0	0	0	0	0	0	46	0	0	46
Agricultural Education	8	3	2	4	10	2	14	2	0	0	0	6	0	0	51
Early Childhood Education	38	16	32	8	48	20	36	6	0	0	1	0	0	0	205
Elementary Education	97	38	91	26	93	35	65	19	0	0	0	132	0	0	596
Industrial Education	7	7	11	16	23	12	20	17	0	0	0	20	0	0	133
Personnel Services	0	0	0	0	0	0	0	0	0	0	1	115	0	0	116
Reading	0	0	0	0	0	0	0	0	0	0	0	71	0	0	71
Science Teaching	2	4	6	1	9	6	8	8	0	0	0	0	0	0	44
Secondary Education	42	16	47	22	78	29	74	30	0	0	2	54	0	0	394
College Total	194	84	189	77	261	104	217	82	0	0	5	660	0	0	1873
Engineering (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Engineering	20	3	3	2	1	0	0	0	0	0	0	0	0	0	24
Bio-Engineering	0	0	0	0	0	0	0	0	0	0	0	16	6	0	22
Ceramic Engineering	6	3	6	4	11	5	9	4	0	0	1	6	0	0	55
Chemical Engineering	62	4	28	6	26	4	18	17	0	0	0	11	10	0	186
Civil Engineering	96	23	43	25	30	11	32	25	0	0	0	20	5	0	310
Electrical Engineering	95	30	43	20	46	25	42	15	0	0	1	10	9	0	336
Engineering Analysis	9	4	3	0	5	2	4	3	0	0	0	0	0	0	30
Engineering Mechanics	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
Engineering Technology	19	8	3	7	9	13	11	5	0	0	0	0	0	0	75
Environmental Systems Engr.	0	0	0	0	0	0	0	0	0	0	0	25	6	0	31
Materials Engineering	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
Mechanical Engineering	57	20	23	9	26	9	24	18	0	0	1	20	3	0	210
Systems Engineering	0	0	0	0	0	0	0	0	0	0	0	10	5	0	15
Water Resources Engineering	0	0	0	0	0	0	0	0	0	0	0	11	1	0	12
College Total	364	95	152	73	154	69	140	87	0	0	3	134	48	0	1319

Total Enrollment by Courses and Academic Classification

Clemson University
First Semester 1974-1975
Page Three

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	PhD	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
IM and TS (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Accounting	53	15	24	14	22	10	21	9	0	0	0	0	0	0	168
Administrative Management	141	61	105	68	120	78	63	47	0	0	0	0	0	0	683
Economics (BA)	14	7	2	4	9	7	6	6	0	0	0	10	0	0	65
Economics	6	0	0	0	0	0	0	1	0	0	0	0	0	0	7
Engineering Management	0	0	0	0	0	0	0	0	0	0	0	3	20	0	23
Financial Management	48	27	40	15	40	14	32	13	0	0	0	0	0	0	229
Industrial Management	23	6	13	7	16	9	9	14	0	0	0	1	0	0	98
Management	0	0	0	0	0	0	0	0	0	0	0	10	1	0	11
Management Science	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
Textile and Polymer Science	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8
Textile Chemistry	6	0	3	4	6	0	2	3	0	0	0	14	1	0	39
Textile Science	1	2	1	1	1	1	2	1	0	0	0	7	0	0	17
Textile Technology	15	9	6	4	7	5	6	2	0	0	0	0	0	0	54
College Total	307	127	194	117	221	124	141	96	0	0	0	49	38	0	1414
Liberal Arts (Non-Degree)	2	0	0	0	0	0	0	0	0	0	0	2	0	0	4
Liberal Arts	45	9	11	1	1	0	1	0	0	0	0	0	0	0	68
English	49	12	34	15	24	16	27	10	0	0	1	46	0	0	234
French	4	1	2	2	4	2	3	3	0	0	0	0	0	0	21
German	1	0	1	2	0	0	0	1	0	0	0	0	0	0	5
History	27	14	18	10	14	4	15	5	0	0	0	10	0	0	117
Political Science	77	14	50	17	42	20	18	19	0	0	0	0	0	0	257
Psychology	75	23	50	25	56	26	46	18	0	0	0	0	0	0	319
Sociology	19	5	13	8	26	10	8	7	0	0	0	0	0	0	96
Spanish	9	1	4	3	7	1	3	1	0	0	0	0	0	0	29
College Total	308	79	183	83	174	79	121	64	0	0	1	58	0	0	1150
Nursing (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nursing AA	29	15	21	14	7	3	0	1	0	0	2	0	0	0	92
Nursing	88	25	78	16	70	18	52	8	0	0	0	0	0	0	355
College Total	117	40	99	30	77	21	52	9	0	0	2	0	0	0	447

Total Enrollment by Courses and Academic Classification
Clemson University
First Semester 1974-1975
Page Four

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	PhD	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Phys Math & Bio Scs (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
Biochemistry	0	0	0	0	0	0	0	0	0	0	0	17	1	0	18
Biology	3	1	1	0	0	0	0	0	0	0	1	0	0	0	6
Botany	10	4	1	0	3	1	0	4	0	0	0	9	0	0	32
Chemical Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemistry (BA)	1	1	2	1	3	3	5	2	0	0	0	0	0	0	18
Chemistry	15	4	9	4	7	4	5	3	0	0	0	12	20	0	83
Geology (BA)	0	0	1	0	1	0	1	3	0	0	0	0	0	0	6
Geology	3	0	4	3	3	2	4	1	0	0	0	0	0	0	20
Mathematics (BA)	13	2	8	0	6	2	6	1	0	0	0	0	0	0	38
Mathematics	43	6	32	11	21	6	18	9	0	0	2	54	22	0	224
Medical Technology	41	4	14	5	14	2	0	1	0	0	0	0	0	0	81
Microbiology	26	23	62	9	41	13	26	15	0	0	0	30	0	1	246
Physics (BA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Physics	15	1	8	0	7	0	5	3	0	0	0	11	20	0	70
Pre-Dentistry	1	0	0	2	8	4	3	5	0	0	0	0	0	0	23
Pre-Medicine	1	1	3	12	20	6	11	2	0	0	2	0	0	0	58
Pre-Medicine Core	109	10	10	1	1	0	0	0	0	0	0	0	0	0	131
Pre-Pharmacy	32	5	15	2	3	0	1	0	0	0	1	0	0	0	59
Pre-Physical Therapy	8	0	0	0	1	0	0	0	0	0	0	0	0	0	9
Zoology	54	23	54	21	38	15	36	25	0	0	0	28	8	0	302
College Total	375	85	224	71	177	58	121	74	0	0	6	168	71	1	1431
For & Rec Res (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Forest Management	81	27	30	16	30	21	19	32	0	0	1	12	0	0	269
Recreation and Park Adm.	97	51	53	40	79	44	54	43	0	0	1	27	0	0	489
Wood Utilization	2	2	1	1	1	0	0	0	0	0	0	0	0	0	7
College Total	180	80	84	57	110	65	73	75	0	0	2	39	0	0	765
Non-Degree Sub-Total	17	0	0	1	0	0	0	0	0	0	19	2	0	10	49
	17	0	0	1	0	0	0	0	0	0	19	2	0	10	49
UNIVERSITY TOTAL	2121	701	1257	595	1346	605	985	561	0	0	48	1321	212	11	9763

MINUTES OF THE UNDERGRADUATE COUNCIL, SEPTEMBER 6, 1974

The Undergraduate Council met in the Conference Room, E-103A Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar H. Brown, Claire O. Caskey, Bingham M. Cool, C. Clifford Fain, James C. Fanning, Viktor Jonkoff (Student Representative), Lawrence E. Nix, Jerry Stonemetz (Student Representative), Gloria Tanner, Edward A. Vaughn, Kenneth N. Vickery, and Frank A. Burtner (Visitor).

Dean Green introduced the new members of the Council: Professor Caskey, Dr. Fanning, Mr. Jonkoff and Mr. Stonemetz.

Dr. Briscoe was re-elected secretary of the Council for 1974-75.

The minutes of the June 25, 1974, meeting were approved as distributed.

A report entitled, "Degree Designation," which was compiled by Dean Vickery was presented for consideration. The following recommendations for change were approved:

College of Industrial Management and Textile Science

Economics Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Economics.
Economics Major (BS)	Approved by the Commission on Higher Education on May 2, 1974. Bachelor of Science in Economics.

College of Liberal Arts

English Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in English
History Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in History
Modern Languages Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Modern Languages
Political Science Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Political Science
Psychology Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Psychology
Sociology Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Sociology

MINUTES OF THE UNDERGRADUATE COUNCIL, SEPTEMBER 6, 1974 (Continued)College of Physical, Mathematical, and Biological Sciences

Chemistry Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Chemistry
Geology Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Geology
Mathematics Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Mathematics
Physics Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Physics

College of Liberal Arts

Action on the following courses was deferred:

Pol Sc 424	Administrative Law, 3 cr (3 and 0)
Pol Sc 427	Government Personnel Administration, 3 cr (3 and 0)

Approval was given to the request from the College of Forest and Recreation Resources that Chemistry 201 be substituted for Chemistry 223 in the Wood Utilization curriculum.

Dr. Burtner, Coordinator of Pre-professional Health Education, presented a recommendation for the authorization of curricula in Pre-Optometry and Pre-Podiatry. The proposed curricula will be referred to the curriculum committee in the College of Physical, Mathematical, and Biological Sciences.

An ad hoc committee to consider the request relative to minimum grade requirements in nursing courses was appointed. Members of the committee are Professor Caskey (Chairman), Dr. Tanner, and Dean Vickery.

Dean Green announced that the next administration of the student evaluation of faculty is scheduled for Spring Semester 1975. The procedure of administering the evaluation will remain unchanged.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 9, 1974

Vice-President Carpenter called the meeting to order at 4:15 P.M. and asked for changes or amendments of the June 11 minutes. After three changes in the spelling of names, the minutes were approved.

Committee Reports

C. W. Roberts reported on eight items of business that were considered by the Policy Committee on June 26. These were:

1. The senate is requested to consider the attached resolution (PC-74-7-1) (FS-74-7-) concerning acting administrators. This is an amendment to the Faculty Senate by-laws (see page 68 - Article II, Section I).
2. Prior to rewriting the sections of the Faculty Manual entitled - Councils, Committees - the Senate is urged to approve the resolution (PC-74-7-2) (FS-74-7-) concerning the role of the Faculty Senate in reviewing policy recommendations of University Councils and Committees.
3. The President of the Faculty Senate is requested to appoint the secretary as Parliamentarian for the Senate. It is further suggested that the business meetings of the Senate be conducted according to Robert's Rules of Order and that investigations be made of the appropriate use of the U. S. House of Representatives' Rules of Order. Specific reference is made to rules for Roll Call votes.
4. The Policy Committee
 - a. Opposes the computerization and memory storage of student evaluations of faculty data.
 - b. Supports and will continue to investigate more effective alternative uses of these data.
5. Preliminary investigations of the tenure policy as stated and practiced at Clemson show that we are in accord with AAUP recommendations. Further input and comment are again requested to be directed to Professor A. H. Holt, 804 Strode Tower.
6. Long range evaluation of the structure of the Senate and its present responsibilities require changes in (1) terms of office and (2) total number of senators.
7. The Senate should evaluate the mechanisms available to it to record its positions by way of resolutions, recommendations and/or motions. This item is referred to the Advisory Committee.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 9, 1974 (Continued)

8. On behalf of the President of the Senate, the Policy Committee recommends that substantive resolutions be accompanied by adequate supportive information to facilitate favorable consideration by the administration of the University.

Relative to item number 1, the amendment will be voted on at the August meeting. The amendment is as follows:

Amendment of the By-Laws of the Faculty Senate (FS-74-7-)

Be it resolved that Article II, Section 1. Membership be amended as follows:

1. Present Provisions

"Any member of the faculty of a college or school may be eligible for membership on the Faculty Senate excluding administrative personnel."

Amended Statement

"..... excluding regular administrative personnel. Senators appointed to a temporary or interim administrative position for a period of three or more months or of longer indeterminate duration shall request a leave of absence from the Senate; and, a temporary substitute shall be appointed by the appropriate Dean of the College concerned."

After much discussion, item number 2 above was tabled for further study.

Welfare Committee

W. Baron indicated that the following memorandum was being circulated to all faculty and staff:

1. Recently the Annuities Committee of the Welfare Committee of the Faculty Senate made an analysis of the Tax Sheltered Annuity program offered at Clemson University. Each of the twenty-one companies authorized to sell tax sheltered annuities on campus was sent an extensive questionnaire. A summary of the results of these questionnaires and subsequent analysis by the Annuities Committee is made in a report entitled, "Tax Sheltered Annuities." The report is quite comprehensive and the results indicate that there are significant differences among the annuity programs being offered. We would suggest that anyone owning or considering the purchase of a tax sheltered annuity read this report. If you cannot obtain a copy of the report through your department head, call on your faculty senator. A list of the companies and their local representatives (if any) is included in the report. The report was distributed to all department heads.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 9, 1974 (Continued)

2. The enrollment period for purchase of tax sheltered annuities has been changed. It is now the first 15 days of the months August through November and January through March. This permits appropriate deductions in the first paycheck of the following month.

Senator Baron also indicated that a package of documents on benefits available to the faculty and staff is being prepared for circulation at a later date. Also, faculty manuals from other Universities are being obtained.

Senator Baron then introduced the following note of thanks which received unanimous approval of the Faculty Senate.

A NOTE OF THANKS TO THE ALUMNI ASSOCIATION FROM THE FACULTY SENATE

The Alumni Association through its initiation of the Alumni Master Teaching Award, has recognized the primary role of Clemson University as an educational institution and as such its need for fine teachers. Through the establishment of this award, the Association has in a very meaningful way acknowledged the importance of good teaching to the University. The Faculty Senate wishes to express its thanks to the Alumni Association for its concern and recognition of the importance of good teaching.

Research Committee

No report.

Admissions and Scholarship Committee

No report.

President's Report

Vice President Carpenter gave the President's report in the absence of President Dillon.

President Dillon's poll of the faculty senate concerning the Proposed Class Attendance Policy for undergraduates as approved by the Undergraduate Council on May 3, 1974, resulted in a 23 to 5 vote of approval. With this as background, President Dillon voted approval of the attendance policy at the Educational Council.

The Advisory Committee of the Faculty Senate nominated Professor J. Y. LeBourgeois to fill the two-year term vacated by Professor W. F. Steirer on the Student Relations Committee. The Advisory Committee has also made the following committee nominations:

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 9, 1974 (Continued)

O. J. Jacobus - Traffic and Parking Committee
C. W. Roberts - Safety and Fire Prevention/Poisonous Chemicals
and Radioactive Materials Committee
Charles Triche III - Archives Committee

President Dillon wrote to Dean Hurst on June 20, 1974, concerning an item in the current Higher Education and National Affairs publication (6/14/74). Dean Hurst was requested to consider initiating "ground work" for the establishment of this University as the state environmental center. The item referred to in the above publication is reproduced below:

ENVIRONMENTAL CENTERS - The Senate passed and sent to the House June 12 a bill (S1865) to encourage the establishment of state and regional environmental centers at higher education institutions or consortia of such institutions. The centers would plan and implement environmental research, train professionals, and operate comprehensive environmental education programs. The bill authorizes grants, which could total as much as \$137 million to \$150 million over five years, to participating states.

A memorandum from Dean Hurst concerning "Changes in Rates for Official Travel for Fiscal Year 1974-75" was read by Vice President Carpenter. Since this information has now received wide circulation, the rates will not be itemized herein.

The Undergraduate Council met on June 25, 1974, and among the agenda items approved was the policy concerning "Elective Credit and Eligibility for Course Enrollment for Undergraduates." The policy as approved is as follows:

"The College and the Department in which a student is enrolled determine what courses a student may use for elective credit toward an undergraduate degree. The College and the Department in which a course is taught determine the eligibility for enrollment in a course." Basically, this policy gives to the College and the Department the prerogative of refusing to enroll a student in a lower numbered course after having completed a higher numbered course. As an example the student could be refused admission into Math 100 after taking Math 103.

New Business

Copies of the Faculty Senate Resolution on the Honor System (FS 73-6-4) and the Student Senate Bill, B-74-48 Honor System will be circulated at the August meeting of the Faculty Senate for vote on acceptance, rejection or change of the Student Senate Bill.

MINUTES OF THE MEETING OF THE FACULTY SENATE, JULY 9, 1974 (Continued)

There being no further business, the meeting adjourned at 4:58 P.M.

Respectfully submitted,

Glen D. O'Dell, Acting Secretary

Members absent: B. B. Bookmyer, V. D. Carmack, R. L. Cross, and C. R. Dillon.

RECREATION AND PARK ADMINISTRATION

Gordon E. Howard (Assoc Prof) presented a position paper entitled, "Needed! A Working Relationship Between Intramural and Recreation Professional Organizations," Sept. 19 at the Southern Regional Intramural Conference held in Chapel Hill, N.C.

TEXTILE DEPARTMENT

Carleton W. Roberts (Assoc Prof) Councilor of the Western Carolina's Section, American Chemical Society, attended the recent convention of the Society where the Council elected him to serve on the Council Committee on Nominations and Elections. He has also been appointed a Legislative Counselor to Senator E. F. Hollings from the American Chemical Society.

AGRICULTURAL ENGINEERING

J. T. Ligon (Prof) attended the Triennial Convention of the Honor Society of Phi Kappa Phi at the University of Tennessee in Knoxville, Aug. 21-24, as the official delegate of the Clemson University Chapter.

"A Portable Dumper-Sorter for Mechanically Harvested Horticultural Crops," by C. E. Hood (Prof), B. K. Webb (Prof), E. T. Sims, Jr. (Prof, Hort), and T. R. Garrett (Asst Ag Engr) was published in the Transactions of ASAE, Vol. 17:2, pp. 240-244, March-April 1974.

CIVIL ENGINEERING

Billy L. Edge (Assoc Prof) was chairman of a technical session on "Ocean Disposal," at the annual Marine Technology Society Conference in Washington, D.C. on Sept. 23-25.

Billy L. Edge presented a paper entitled, "Practical Application of EPA Water Quality Models," for the Institute on Dispersion and Transport of Pollutants in Waterways at California State University in Los Angeles on Sept. 26. The program was co-sponsored by California State University and the Environmental Protection Agency.

Billy L. Edge attended a meeting of the Research Committee of the American Society of Civil Engineers, Waterways, Harbors, and Coastal Engineering Division in San Francisco on Sept. 27.

William Baron (Assoc Prof), J. Edwin Clark (Assoc Prof), and Joseph P. Rostron (Prof) attended the South Carolina Highway Users Conference in Columbia on Sept. 24. Dr. Baron is serving as President of the South Carolina section. ASCE presented a plaque to Governor West commemorating national highway use and the ASCE's nomination of the Interstate Highway System as the engineering project of the year.

Herbert W. Busching (Assoc Prof and Hd) attended the Associate General Contractors Mid-Year Meeting in Philadelphia on Sept. 21. Dr. Busching presented final reports on his project entitled, "Educational Programs for Small Contractors-A Need Survey and Pilot Development," to the Construction Education and Construction Research Committees.

Parviz F. Rad (Asst Prof) has been appointed as a District Councilor of The American Society for Testing and Materials' Carolinas District for a two-year term.

The paper entitled, "Bluntness and Uses of Rolling Disk Cutters," by P. F. Rad has been approved for publication by the International Journal of Rock Mechanics and Mining Sciences.

Parviz F. Rad prepared a paper entitled, "A Simple Technique for Determining Strength of Aggregates," for presentation at the American Society for Testing and Materials Symposium in Atlanta in Dec. and for publication as part of an ASTM Special Technical Publication.

Donald B. Stafford (Assoc Prof) and Joseph P. Rostron (Prof) attended the annual meeting of the American Society of Photogrammetry in Washington, D.C. on Sept. 11-12.

CIVIL ENGINEERING (Continued)

Subhash C. Anand (Assoc Prof) is the co-author (with Dr. V. K. Garg, Electromotive Div, GM Corp, LaGrange, Ill and Professor P. G. Hodge, Jr., Univ of Minn) of an article entitled, "Elastic-Plastic Analysis of a Wheel Rolling on a Rigid Track," which appeared in the International Journal of Solids and Structures, Vol. 10, No. 9, Sept. 1974. This paper was also presented by the authors at the 7th U.S. National Congress of Applied Mechanics, held at the University of Colorado, Boulder, in June of this year.

Subhash C. Anand presented a paper at the International Conference on Computational Methods in Nonlinear Mechanics held at the University of Texas at Austin on Sept. 23-25. The paper entitled, "Nonlinear Analysis of a Rolling Contact Problem by Finite Elements," is co-authored with H. H. Shaw (Grad Stu) and is published in the Conference Proceedings.

Freddy L. Roberts (Assoc Prof) attended a meeting of the National ASCE Structural Design of Pavement Committee in Atlanta on Sept. 5. The committee is planning a Pavement Design Specialty Conference for June 1975 to be held at Georgia Tech. Dr. Roberts has been asked to handle the review and acceptance of papers submitted for presentation for this conference.

CHEMICAL ENGINEERING

The department of Chemical Engineering has received a \$1000 unrestricted grant from Monsanto Company for 1974-75 academic year.

W. F. Beckwith (Assoc Prof) has published a paper entitled, "Estimation of Explosive Limits of Non-Condensable Gas Mixtures," in the October issue of the Journal TAPPI.

W. F. Beckwith has received a grant of \$2500 from TAPPI for support of a graduate student to do research on mathematically modeling the chemical recovery section of a kraft pulp mill.

The department of Chemical Engineering has received a \$1200 undergraduate scholarship in Petroleum Engineering for 1974-75 academic year from the Amoco Foundation.

R. C. Harshman (Prof) has been elected to serve as chairman of the Western Carolina Section of the AIChE for 1974-75, and S. S. Melsheimer (Assoc Prof) will be serving a second term as secretary.

COLLEGE OF ARCHITECTURE

Robert D. Eflin (Assoc Prof) served as a juror in an Honors Awards Program of the Texas Society of Architects held in Austin, Texas, Sept. 5-7. Other jurors participating in the program were Hugh Stubbins F.A.I.A. of Cambridge, Mass. and Paul Hayden Kirk, F.A.I.A. of Seattle, Wash.

Vernon S. Hodges (Prof) spoke at the department of Civil Engineering's short course on Housing Inspection, Sept. 16 at a dinner meeting held at the Clemson House. His subject was "The Houses of Pendleton."

COLLEGE OF EDUCATION

The departments of Military Science and Aerospace Studies sponsored Rear Admiral John B. Johnson, Executive Officer of the Reserve Policy Board, Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs, at 10:00 A.M., Oct. 11. Admiral Johnson presented remarks on, "The Current Status of Military and Reserve Affairs."

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

W. D. Trevillian (Dean), T. D. Efland (Assoc Dean), and E. I. Stearns (Prof and Hd, Textiles) represented the College of Industrial Management and Textile Science at the "Educational-Industry" orientation day held by American Enka, Enka, N.C., Sept. 26-27.

DAIRY SCIENCE

B. F. Jenny (Asst Prof) co-authored a paper entitled, "The Relationship of Ruminal Volatile Fatty Acids, Serum Insulin and Glucose to Lipid Metabolism." The paper was presented by C. E. Polan (Prof, VPI and SU) at the Fourth International Symposium on Physiology of Digestion and Metabolism in the Ruminant held in Sydney, Australia.

G. D. O'Dell (Assoc Prof), Fred E. Pardue (Assoc Prof), and B. F. Jenny participated in the Southern College Dairy Conference Feed Board Meeting in Columbus, Ohio on Aug. 14-15. Reports on Dairy Science Nutrition Research were presented at the conference.

F. E. Pardue, G. D. O'Dell, and G. E. Gramling (Asst Prof) participated in the "Conference on Computerized Dairy Feeding Management Systems for Southeastern States," in Atlanta, Ga. on Sept. 4-6. Dr. Pardue presented a talk on "What Dairymen Want and Will Use on Their DHI Records."

ECONOMICS DEPARTMENT

Ralph Byrns (Asst Prof) and G. W. Stone, Jr.(UNC, Charlotte) presented a paper, "Value-added vs. Retail Sales Tax" at the Atlantic Economic Conference meetings in Richmond, Va., Sept. 27-28.

Ralph Byrns, Ed Ireland (Asst Prof), Rodney Mabry (Asst Prof), and Holley Ulbrich (Assoc Prof) presented a Forum on Inflation in Daniel Auditorium on Sept. 24. The Forum attracted members of the public as well as the University community. Russell Shannon (Assoc Prof) served as chairperson.

ELEMENTARY AND SECONDARY EDUCATION

James E. Matthews (Prof) served as a panelist at the meeting of the South Carolina Association of School Personnel Administrators in Columbia on Sept. 26. The topic of the panel discussion was, "The Legal Status of School Personnel."

ENGLISH

Roberta Schwartz (Asst Prof) has published "The Ambiguities of Villette," in the current issue of North Dakota Quarterly.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Prof) presented an invited discussion of a paper entitled, "Anaerobic Digestion of Yeast Waste (G. S. Hansford and H. I. H. Richter, authors) at the 7th International Conference on Water Pollution Research, Paris, Sept. 11. He also served as co-chairman of one of the technical sessions at the Conference and presented a report as chairman of the U.S. Membership Committee for IAWPR.

J. F. Andrews is co-editor of a book, Progress in Water Technology, Vol. 6, "Instrumentation, Control and Automation of Wastewater Treatment Systems," London Conference 1973, just published by Pergamon Press. The other co-editors are R. Briggs, Water Pollution Research Laboratory, England and S. H. Jenkins, Upper Tame Main Drainage Authority, England.

J. F. Andrews and T. M. Keinath (Assoc Prof) presented papers at the workshop entitled, "Research Needs for Automation of Wastewater Treatment Systems," which was held at the Clemson House, Sept. 23-25. The papers were: "Dynamics and Control of Biological Treatment Processes," and "Automation of Physical and Chemical Processes." H. O. Buhr (Visit Prof, Univ of Cape Town, South Africa) and M. K. Stenstrom (Ph.D. Stu) served as official recorders for the workshop.

MECHANICAL ENGINEERING

James G. Goree (Assoc Prof) has been notified of the approval of a grant from the National Aeronautics and Space Administration. The research is entitled, "Crack Growth in Bonded Elastic Half Planes," and is approved for the period Oct. 1, 1974 through Dec. 31, 1975. Total funds awarded amount to \$26,135.

MICROBIOLOGY

The following papers were presented by members of the Microbiology Department at the annual meeting of the American Society for Microbiology, held in Chicago, May 12-14:

"Survival of Fecal Pollution Indicator Organisms and of a Salmonella in Sea Water Contaminated with Industrial Wastes," by D. D. Parker (Grad Stu) and Ann W. Baxter (Assoc Prof).

"The Influence of Thermal Loading on Die-off Rates of Escherichia coli in Sewage," by R. K. Guthrie (Prof), D. S. Cherry (Post Doc Stu, VPI) and F. L. Singleton (Stu).

"Effect of Number of Generations of Growth in Continuous Culture on Sporulation Frequency of Clostridium perfringens," by H. W. Findley (Grad Stu) and M. G. Johnson (Asst Prof, Food Sci and Micro).

"Resistance of Vibrio parahaemolyticus to Sub-Lethal Heat When Grown in Batch and Continuous Cultures," by P. J. Baab (Grad Stu) and M. G. Johnson.

"Isolation and Characterization of Obligate Anaerobes from Cheddar and German Hand Cheeses," by W. M. Gray (Grad Stu) and M. G. Johnson.

"Effect of Temperature on the Bacterial Component of Lake Water Maintained Under Continuous Culture Conditions," by J. D. Taylor (Grad Stu) and M. J. B. Paynter (Prof and Hd).

"Survival of Salmonellae and Fecal Coliforms in Swine Waste Lagoon Effluents," by D. J. Krieger (Grad Stu) and J. H. Bond (Assoc Prof).

"Microbial Degradation of 3,5-Diiodo-4-Hydroxybenzonitrile in Soil," by J. C. Hsu (Belle Baruch Fellow) and N. D. Camper (Assoc Prof, Plant Path, Physiol and Bot).

R. K. Guthrie (Prof) has recently accepted the chairmanship of the Biological Problems Committee of the American Water Works Association. This committee will deal with research, standards development, and the application of biological tools in water quality monitoring.

LANGUAGES

H. E. Stewart (Prof and Hd) is President of the South Carolina Chapter of the American Association of Teachers of French and chaired the fall meeting Sept. 28 at South Carolina State College in Orangeburg. Russell Willingham (Instr) presented a paper, "Martinique et Negritude," and D. Y. Brannock (Asst Prof) spoke on "How To Counsel French Majors Honestly on Job Opportunity." At the concurrent meeting of the South Carolina Chapter of American Association of Teachers of Spanish and Portuguese, Gaston J. Fernandez (Assoc Prof) was installed as President. At the concurrent meeting of the South Carolina Chapter of the American Association of Teachers of German, Patricia Wannamaker (Assoc Prof) was moderator of a panel discussion on "Methods and Materials in Teaching German at the High School and College Levels."

MATHEMATICAL SCIENCES

K. T. Wallenius (Prof) has been appointed by the Society for Industrial and Applied Mathematics to its Panel of Lecturers for the 1974-75 Visiting Lectureship Program. The panel consists of 36 applied mathematics lecturers across the nation who visit colleges and universities to stimulate interest in the mathematical sciences.

PHYSICS AND ASTRONOMY

Beverly B. Bookmyer (Assoc Prof) has had "Epochs of Minimumlight, Ez Hydrae," published as Commission 27 of the I. A. V. Infor. Bull. on Var. Stars, No. 919, 1974.

R. L. Chaplin (Prof) had an article entitled, "The Production of Frenkel Defects in fcc Metals," published in Radiation Effects, 1974, Vol. 22, pp. 117-121.

R. L. Chaplin and M. G. Miller (Assoc Prof) had an article entitled, "Defect Production in Vanadium by Low Energy Electron Irradiations," published in Radiation Effects, 1974, Vol. 22, pp. 107-108.

P. B. Burt (Prof) and J. L. Reid (former Grad Stu) published a paper entitled, "Solutions of Nonlinear Partial Differential Equations from Base Solutions," in the Sept. issue of Journal of Mathematical Analysis and Applications, pp. 520-530.

J. A. Gilreath (Asst Prof) participated in a Seminar on Scanning Electron Microscopy held at Hayward, Calif. by the ETEC Corporation, where the participants discussed and presented their views on current applications and techniques of scanning electron microscopy.

PLANT PATHOLOGY AND PHYSIOLOGY

L. W. Baxter (Prof) attended the annual meeting of the Southeastern Nurserymen's Convention at Atlanta, Ga., Aug. 3-5 and presented the following papers: "The Azalea Phomopsis Stem Blight Story," "Southern Blight of Aucuba japonica Caused by Either Sclerotium rolfsii or a Related Sclerotium sp," and "Studies on the Uptake of Benomyl by Several Coniferous Plants."

W. M. Dowler (Res Plant Pathologist, USDA) attended the annual meeting of the American Society for Horticultural Science at Guelph University, Ontario, Canada, Aug. 11-15. He presented a paper entitled, "Influence of Site and Pruning Date on Element Content of Dormant Peach Trees," and co-authored by W. C. Nesmith and D. J. Weaver (USDA, Byron, Ga).

S. A. Lewis (Asst Prof) attended the annual meeting of the Society of Nematologists and the Organization of Tropical American Nematologists at Riverside, Calif., Aug. 19-22 and presented the following papers, "Host range, distribution, and control of Hoplolaimus columbus," co-authored by F. H. Smith (Prof) and C. W. Blackmon (Asst Prof, Edisto Station), and "Histopathology of infection by Hoplolaimus columbus on cotton and soybean and aspects of its pathogenicity."

POLITICAL SCIENCE

Harold E. Albert (Assoc Prof) is the author of a chapter entitled, "A Simulated Decision Making Problem in Nuclear Power Plant Licensing," in A Collection of Energy Courses published by the Lawrence Berkeley Laboratory.

PROFESSIONAL DEVELOPMENT

Robert L. Brown (Visit Prof, IM) and Joseph T. Allmon (Vice-Pres, Organization, Riegel Textile Corp) will present, "Practical Skills in Managing People - Section II," on Nov. 12-13 in Sirrine Hall. This program is co-sponsored by the Office of Professional Development and the College of Industrial Management and Textile Science.

Hassan El-Behery (Manager, Textile Processing, Phillips Fibers, Greenville) will direct a Professional Development Program entitled, "Draw Texturing, 1974," on Nov. 15-16. This program is co-sponsored by the College of Industrial Management and Textile Science.

CALENDAR OF CAMPUS EVENTS

- 15 -- Engineering Colloquia: Combustion Modifications for Control of NO_x Emissions from Stationary Sources, Dr. John M. Tarbell, University of South Carolina. Sponsored by the Department of Chemical Engineering. 4:00 p.m., 100 Earle Hall, open to the technical community, admission free.
- 16 -- University Union Fine Arts Film: Jules and Jim, directed by Francois Truffaut. 8:00 p.m., Daniel Auditorium, University I.D. required, admission free.
- 16 -- Fort Hill Clemson Quarterback Luncheon, 12:00 Noon, Clemson House.
- 17 -- University Concert Series: Royal Uppsala Chorus of Sweden. 8:00 p.m., Littlejohn Coliseum, admission by student activity card, season ticket, or individual tickets on sale at gate.
- 17 -- Engineering Seminar: Politics of Energy and Environment Policies, Alice Tetelman, Citizens Advisory Committee on Environmental Quality. Sponsored by the Department of Environmental Systems Engineering, 4:00 p.m., 302 Rhodes, open to all interested persons.
- 18 -- Meeting of Alumni National Council, Election of National Officers for 1975. Meeting of Clemson Foundation Directors, Alumni Center.
- 18 -- Soccer: North Carolina, 3:00 p.m., here.
- 19 -- Football: Duke (Homecoming), 1:00 p.m., here.
- 19 -- Open House at the Clemson Alumni Center, 9:00 a.m. - 12 Noon.
- 20 -- University Union Sunday Free Flick: Conqueror Worm. 8:00 p.m., YMCA Theater, University I.D. required, admission free.
- 21 -- Soccer: Erskine, 3:00 p.m., here.
- 21 -- Architecture Lecture: Design Influences with Ulrich Franzen, architect, New York City. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 21 -- Plant Pathology Seminar: Environmental Pollutants and Plant Symptomatology, Mr. Charles Drye. 12:20 p.m., 222 Long Hall.
- 22 -- Spanish Play: Juego de Ninos. Sponsored by the Language Department; 8:00 p.m., Daniel Auditorium, open to the public, admission free.
- 23 -- Agronomy Lecture: Fertilizer Distribution and Marketing, A.V. Whitney, Marketing Services, Royster Company. Sponsored by the Department of Agronomy and Soils, 9:05 and 11:15 a.m., A-203 P&AS Building, open to the public.
- 23 -- Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 24 -- Speakers Bureau: Orson Bean, 7:00 p.m., Tillman Auditorium.
- 24 -- Chamber Music Series: The Anderson String Quartet, violinists Douglas Vaughn and Alex Spainhour, violist Kay Kauffman and cellist Michael Donovan in an evening of string music. Sponsored by the Music Department, 8:00 p.m., Daniel Auditorium, open to the public, admission free.

- 24 -- Chemistry Seminar: 121 SB Mossbauer Spectroscopy, J.G. Stevens, University of North Carolina . Sponsored by the Chemistry Department, 8:00 p.m., 131 Brackett Hall.
- 24 -- Engineering Seminar: Training for the National Pollution Discharge Elimination System, Harold Jeter, EPA/NERC, Cincinnati. Sponsored by the Department of Environmental Systems Engineering, 4:00 p.m., 302 Rhodes, open to all interested persons.
- 26 -- Children's Literature Symposium, sponsored by the Department of English. Registration 8:45 a.m., Daniel Auditorium, open to the public.
- 26 -- Graduate Record Examination, 8:30 a.m., M-101 Martin Hall.
- 27-29 -- Ninth Annual Regional Lipid Conference, sponsored by the Department of Biochemistry. Registration, 6:00 p.m., Alumni Center, open to all interested persons, nominal admission fee. For further information, contact Dr. Gary Powell, 124 Brackett Hall, 656-3059. Expected enrollment, 60.
- 27 -- University Union Sunday Free Flick: Hunchback of Notre Dame, 8:00 p.m., YMCA Theater, University I.D. required, admission free.
- 28 -- French Film: Phedre. Sponsored by the Language Department, 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 28 -- Plant Pathology Seminar: Taking a New Look at Pesticides. Sponsored jointly by the Departments of Entomology and Plant Pathology and physiology, 12:20 p.m., 222 Long Hall.
- 28 -- Engineering Seminar: Techniques for Deriving Closed Design Formulas for Complex Structural Systems, Dr. Donald L. Dean, North Carolina State University. Sponsored by the Department of Civil Engineering, 3:30 p.m., Lowry Hall Auditorium, open to the public, admission free.
- 29 -- History Film: Frank Capra's Mr. Smith Goes to Washington, discussion led by Dr. Alan Schaffer. Sponsored by the History Club, 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 30 -- Lecture: Maynard Mack, Professor of English at Yale. 7:30 p.m., Daniel Auditorium, open to the public, admission free.
- 30 -- Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 31 -- Chemistry Seminar: Molecular Beam Studies of Exciton Energy Transfer in Molecular Collisions, E.E. Muschlitz, University of Florida. Sponsored by the Department of Chemistry. 8:00 p.m., 131 Brackett Hall.
- 31 -- Engineering Seminar: Process Control Solutions, John H. Koon, AWARE. Sponsored by the Department of Environmental Systems Engineering. 4:00 p.m., 302 Rhodes, open to all interested persons.

South Carolina Education Radio Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI, 89.3-FM, Charleston.

- 17,24&31 -- Poetry Today: (17) Brother Antoninus, (24) Rod McKuen, (31) Edgar Allen Poe, with Dr. Robert Hill, Clemson English Department. 12:00 Noon and 7:45 p.m.

- 18&25 Majors and Minors: (18) The Winds are Blowing, Divertimenti of Mozart and
19&26 R. Strauss, (25) Chamber Music of Dvorak, 2:00 p.m., (19&26) Music and the
Military Life, 10:30 p.m.
- 18&25 Food for Thought: (18) EFNEP - Expanded Food/Nutrition/Education Program,
with Dr. Ruby Craven, (25) Nutrition Up to Date - Up to You, with Doris
Ferrington, with Marie Hindman, Associate Professor of Home Economics in
Nutrition, 12:00 Noon and 7:45 p.m.
- 21&28 Shakespeare Scene-by Scene: Much Ado About Nothing, parts 2 and 3, with
Dr. Ray Barfield, Clemson English faculty, 11:00 a.m.
- 23,26&30 Word-Go-Round, (23,26) Confused Pairs, Part 2, (30) An Australian Looks at
American Slang with Professor Harold Oliver, with Herman and Mary Felder,
Wednesdays at 11:30 a.m., Saturdays at 6:45 p.m.
- 23&26 Fiddlers Grove: 1974 Oldtime Fiddlers and Bluegrass Festival, (23) 2:00 and
9:00 p.m., (26) 1:30 p.m.
- Daily Carolina Weathervane, from Clemson Extension Service, S.C. Experiment Station
and National Weather Service, featuring agricultural news, weather, recommend-
ations and county reports, 12:15 p.m.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 6

OCT 2 2 1974

November 1, 1974

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Mechanical Engineering Department Names Heads

Eugene H. Bishop, head of the mechanical engineering department at Montana State University since 1969, now has assumed the same post at Clemson.

Bishop has directed research projects for the Atomic Energy Commission, the National Aeronautics and Space Administration and the National Science Foundation. Among these projects was a technical feasibility study of a wind energy conversion system based on the tracked vehicle airfoil concept.

He earned his B.S. degree at Mississippi State University in 1955 and his Ph. D. degree at the University of Texas in 1964.

The College of Engineering also has appointed Gilbert Rainey a visiting professor. Rainey is on a one-year leave of absence from his position as director of the Individualized Instruction Learning Center at Purdue University.

Rainey was head of the department of electrical technology at Purdue from 1964-1973. He had written five books on electricity and electronics.

Memorial Award Establishes Endowment in Psychology and Sociology

The Ernest Jewell Hardesty Moore Memorial Award had been established at Clemson through a gift of \$5,000 by Mrs. Anne Moore of Camden in memory of her son Ernest, a former Clemson Student.

Mrs. Moore's initial gift will be used, along with those of other donors, to establish an endowment supporting two annual awards of \$200 each to outstanding students majoring in psychology and sociology.

The memorial award is the first endowed in the College of Liberal Arts designated for use in psychology and sociology. The first recipients will be recognized at the University's annual Honors and Awards Day ceremonies next April.

New Bioengineering Award Announced

A new annual award to honor a Clemson University student for "outstanding achievement in scholarship and research in the field of bioengineering," was announced October 12 at the annual meeting of the Clemson Advisory Board for Bioengineering.

Called the Moore Prize, the award was established by the Moore Orthopaedic Clinic of Columbia in memory of its founder, Dr. Austin D. Moore. Moore was for many years one of this country's leading orthopaedic surgeons and pioneered the development and use of artificial hips in the late 1930s.

Bioengineering attempts to apply the techniques and methods of engineering to societal problems such as medicine and health care. Over the past eight years the bioengineering program at Clemson has achieved worldwide recognition for its contributions to medicine, especially in the fields of orthopaedics and oral surgery.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, OCTOBER 7, 1974

Present: Robert C. Edwards, presiding; Victor Hurst, Stanley G. Nicholas, Joseph B. McDevitt, Walter T. Cox, Luther P. Anderson, H. Morris Cox, Charles R. Dillon, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of September 2, 1974 were approved as submitted.

2. Changes for Awarding the Bachelor of Arts Degree

The Dean of the University recommended the following changes, effective January 1, 1975, for awarding the Bachelor of Arts degree in order to obtain more consistency and uniformity with our current practice of designating majors in awarding Bachelor of Science degrees:

College of Industrial Management and Textile Science

Economics Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Economics. (Bachelor of Science in Economics approved by the Commission on Higher Education on May 2, 1974.)
----------------------	---

College of Liberal Arts

English Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in English
History Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in History
Modern Languages Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Modern Languages

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, OCTOBER 7, 1974 (Continued)

Political Science Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Political Science
Psychology Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Psychology
Sociology Major	Change diploma designation from Bachelor of Arts to Bachelor of Arts in Sociology

College of Physical, Mathematical, and Biological Sciences

Chemistry Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Chemistry
Geology Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Geology
Mathematics Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Mathematics
Physics Major (BA)	Change diploma designation from Bachelor of Arts in Arts and Sciences to Bachelor of Arts in Physics

Action: Approved.

3. Curriculum Changes

The Dean of the University recommended additions, deletions and changes in the curricula, effective when designated on the Request for Approval forms as follows:

I. COLLEGE OF ENGINEERING

(A) New Undergraduate Courses:

CE 403	Modern Uses of Computers in Structural Engr.	3 cr. (2 and 2)
CE 441	Applied Hydraulics	3 cr. (3 and 0)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, OCTOBER 7, 1974 (Continued)

(B) Change in Undergraduate Course:

E&CE 403	Energy Conversion	3 cr. (3 and 0)
	(This course is being updated to reflect technological advances.)	

(C) New Graduate Courses:

CE 603	Modern Uses of Computers in Structural Engr.	3 cr. (2 and 2)
CE 641	Applied Hydraulics	3 cr. (3 and 0)
E&CE 701	Special Problems	1-3 cr.

(D) Change in Graduate Course:

E&CE 603	Energy Conversion	3 cr. (3 and 0)
	(This course is being updated to reflect technological advances.)	

II. COLLEGE OF FOREST AND RECREATION RESOURCES

(A) The Dean of the University recommended approval of the request of the College of Forest & Recreation Resources that Chemistry 201 be substituted for Chemistry 223 in the Wood Utilization curriculum.

III. COLLEGE OF LIBERAL ARTS

(A) New Graduate Courses:

Psych 602	Abnormal Psychology	3 cr. (3 and 0)
Psych 642	Sensory Processes	3 cr. (3 and 0)

Action: Approved.

E. N. Tyndall
 E. N. Tyndall
 Secretary

MINUTES OF THE FACULTY SENATE MEETING, AUGUST 20, 1974Call to order and approval of the minutes

President Dillon called the meeting to order at 4:15 p.m. and asked for corrections or additions to the July 9 minutes. After four minor changes, the minutes were approved.

Committee Reportsa. Admissions and Scholarship

Committee chairman Fitch introduced Resolution on Student Senate Bill B-74-48 (FS 73-6-4) concerning the "Honor System." Senator Roberts moved that the second sentence of Section II c be changed to "Should the instructor persist in his opinion that an act of cheating did occur he will note all known particulars in memorandum form; forward to the appropriate Associate Dean of Students, through the Department Head and Dean of College." A spirited discussion followed whereby some serious questions concerning Section IV were raised. Senator Roberts moved that the resolution be tabled; the motion to table passed unanimously.

b. Welfare No report.c. Policy No report.d. Research No report.President's Report

President Dillon read a letter of resignation from Dr. Knapp who has recently been named acting head of the Department of Sociology. President Dillon accepted the letter but offered Dr. Knapp a leave of absence.

President Dillon read a letter from Dean Cox announcing the election of two new senators who will represent the College of Liberal Arts:

Professor Thomas Douglass, English, replacing Senator Cross

Professor Martin Slann, Political Science, interim replacement for Prof. Knapp

President Dillon announced the following appointments:

Senator Jacobus - Traffic and Parking Committee

Senator Roberts - Fire and Safety Committee

Senator Triche - Archives Committee

On July 19 President Dillon wrote a letter to Mr. Joe Sherman, Director of Alumni Relations, expressing appreciation for the Alumni Teaching Award.

MINUTES OF THE FACULTY SENATE MEETING, AUGUST 20, 1974 (Continued)

President Dillon attended the Graduate Council Meeting on August 7, but had no report.

President Dillon discussed with Dean Vickery the possibility of including more decorum and pageantry along with the awarding of the Faculty and Norris medals. They discussed the possibility of redesigning the small medals so that they would be more easily seen during the ceremony. Dean Vickery suggested that the faculty not leave the auditorium before the stage party exits. Senator Baron discussed the lack of pageantry and decorum and the state of confusion at the last commencement exercise and requested: that the Administration consider the possibility of reinstating the practice of having an invited commencement speaker; that they eliminate the handing out of diplomas to individual students; that a rotational system be devised for faculty attendance. In view of these suggestions, President Dillon appointed Ad Hoc Committee E to study the commencement problem: Senators Douglass (chairman), Slann, Baron, and Goree. This committee solicits written suggestions from the faculty, (please send them to Senator Douglass).

The Health Maintenance Organization (HMO), considered by the Welfare Committee in 1972, is coming to fruition through the S. C. Department of Health and Environmental Control. President Dillon referred this matter to the Welfare Committee.

Dean Hurst has approved the printing of an additional 150 copies of the TSA study. If there are questions on TSA faculty and staff should call Mr. Ron Herrin's office.

President Dillon read Dean Claud Green's letter on the Review of Undergraduate Programs: No program will be discontinued; low enrollment is not a problem. Dean Green suggested that total course enrollment should be watched very carefully.

President Dillon recognized Senator Tombes who is a member of the planning council. Senator Tombes reported that the Council had discussed the pedestrian campus concept; that the road in front of the library would be closed between 7:00 a.m. and 5:00 p.m.; and that plans for a university golf course are under study. Senator Baron requested that the planning commission show justification for supporting the closing of the street in front of the library. He pointed out that the barricade is not aesthetic and that cars can drive up to both sides of the barricade. He can see no real justification for the barricades, but if we must have them that they be in effect from 8:30 a.m. until 3:30 p.m. A discussion followed during which it was pointed out that streets are named but none is labeled except on a map.

MINUTES OF THE FACULTY SENATE MEETING, AUGUST 20, 1974 (Continued)

President Dillon briefly explained the organization of the Affirmative Action Committee and discussed its functions. The University-wide AA officer is Colonel Tyndall, Administrative Assistant to the President. The coordinator for the academic area is Dean Sam Willis; the AA specialist working with Dean Willis is M. A. Sturgis; the coordinator for the non-academic area is Mr. Ray Thompson, Associate Director of Personnel. There are 23 AA Unit Coordinators. The AA Committee is a University standing committee which is appointed by the President on the recommendation of the five Vice-Presidents. The Committee advises the AA officer on matters relating to equal employment opportunity and the affirmative action program. It is suggested that each faculty and staff member read pages 16, 17, 18 through C of the Affirmative Action Plan. All Clemson University faculty members should be aware of the fact that should a case of overt discrimination in the classroom by an individual professor against any minority group - not just black, female, etc., but athletes, military students, etc. may be in violation of the Affirmative Action Plan. A violation of the AA will jeopardize federal funding at the University, and we will commit no acts which will jeopardize federal funding. (Such discrimination probably violates the tenet of academic freedom as well, but the tendency is to overlook that.)

President Dillon referred to the Research Committee the House of Representatives Bill S 1865, Environmental Centers Act of 1974 with instructions to discuss with Dean Henningson possible action.

In answer to a complaint concerning the Poole Scholarship Award, President Dillon announced that the new application will carry the admonition that the scholarship may be awarded as early as mid January. Other Clemson scholarships are applied for by February 15. The Poole Scholarship is not applied for but is awarded.

President Dillon recognized Senator Jacobus who reported briefly on the activities of the University Traffic Committee: Vehicles can be parked up to the barricades; the fine for passing a barricade can be up to \$100 plus four points off the offender's license; there are approximately 200 extra parking places which resulted when 175 green T (graduate assistants) and 50 graduate research assistants parking decals were removed; radar will be used to control traffic speed in the 25 and 35 mph zones on highway 93 between the Clemson House and Sikes Hall; there are 240 students in the Clemson House and parking there will be critical, and all parking regulations will be enforced 24 hours per day; three traffic and parking maps - student, bicycle, and faculty - are available. Senator Jacobus pointed out that bicycles, pedestrians and emergency vehicles are the only traffic that can legally penetrate the barricades.

MINUTES OF THE FACULTY SENATE MEETING, AUGUST 20, 1974 (Continued)

President Dillon briefly reported on the Board of Trustees meeting. The greatest changes at Clemson have occurred over the last four years, there has been more centralization which has resulted in less flexibility for action on the campus. The Council of Presidents has presented to the CHE the need for a master plan for Higher Education in South Carolina. It was pointed out that the number of institutions for higher learning has increased from 6 in 1938 to 78 in 1974. President Edwards and the Board have offered their enthusiastic support of the arrangement whereby Clemson and the USC will solidify their relationship and reduce competition in all areas except in the athletic arena. Trustees Coker and Waddell of Clemson will work out the solidified position. Clemson University might have problems complying with Title IX which removes all discrimination due to sex. All rules must affect both sexes identically.

Old Business

Senator Roberts moved that Resolution FS-74-7-2 concerning the role of university councils and committees in faculty policy matters be removed from the table for acceptance or rejection. The motion was seconded and passed unanimously. President Dillon asked that in the absence of Vice President Carpenter, Secretary Adkins assume the chair. Secretary Adkins announced that the floor was open for discussion and recognized President Dillon who spoke against the Resolution pointing out that the Senate is represented on the Educational Council by the President of the Senate. No academic policy becomes effective unless approved by the Council. The President of the Senate votes in the Educational Council to reflect the attitude of the Senate. Further, matters of academic policy which arise in other councils and committees are referred to the Senate by Dean Hurst through the President of the Senate. Senator Baron pointed out that the policy related to Academic Affairs on requirements for B.S. and B.A. was never presented to the Senate for their reaction. In answer it was pointed out that the policy in question did not arise on campus at all but came to the university as guidelines set down by the accrediting agency. During the ensuing discussion, it was pointed out that there was no objection to the Resolution per se, only to the way it was worded. Senator Roberts spoke in favor of the resolution and called for the question. The question to bring the matter to a vote failed (15 opposed and 12 in favor). The floor then was open for further discussion. Senator Baron called for the question which was approved unanimously. The resolution was defeated (16 opposed and 9 in favor).

Senator Roberts moved that the Senate approve the attached Amendment of the By-Laws of the Faculty Senate (FS-74-7-3) which makes provisions for a Senator who has been appointed to a temporary or interim administrative position to request a leave of absence from the Senate and a temporary substitute be appointed by the appropriate Dean. The motion received a second, and during the discussion the use of the term regular administrator was questioned. It also was pointed out that if the resolution passes, it will not be official until approved by the Faculty at its next meeting. There was a call for the question which was unanimously approved.

MINUTES OF THE FACULTY SENATE MEETING, AUGUST 20, 1974 (Continued)

The motion to submit the amendment to the Faculty was approved unanimously.

New Business

There was no new business from the floor.

President Dillon reported that he is going over the Faculty Manual page by page and he requested that each Senator read each section and make suggestions on what changes should be made. Sections should be revised or rewritten and sent to President Dillon at least by October. President Dillon requested that the Senators make suggestions on some type of loose-leaf arrangement for the Manual so that periodic changes can be made as they become necessary. One suggestion has been made that the Manual be reprinted each year and the changes be incorporated at that time.

Adjourn

The meeting adjourned at 6:10 p.m.

T. R. Adkins, Jr., Secretary

Senators absent: Bookmyer, Carpenter, Goree, and O'Dell.

Amendment of the By-Laws of the Faculty Senate
(FS-74-7-3)

Be it resolved that Article II, Section 1. Membership be amended as follows:

1. Present Provision

"Any member of the faculty of a college or school may be eligible for membership on the Faculty Senate excluding administrative personnel."

Amended Statement

". . . . excluding regular administrative personnel. Senators appointed to a temporary or interim administrative position for a period of three or more months or of longer indeterminant duration shall request a leave of absence from the Senate; and, a temporary substitute shall be appointed by the appropriate Dean of the College concerned."

GRADUATE COUNCIL MINUTES, SEPTEMBER 13, 1974

The Graduate Council met at 3 P.M. Friday, September 13, 1974 in the Conference Room of E-103 Martin Hall. Those present were: Dr. Dysart, Dr. Shuler (for Dr. Smith), Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Rodgers, Dr. Hendricks, Professor Falk, and Dr. Lee (visitor).

Dean Schwartz called the meeting to order. The minutes of the August 7, 1974 meeting were approved as distributed.

The following new courses and changes were approved:

COLLEGE OF ENGINEERING

CE 603 - Modern Uses of Computers in Structural Engineering
 CE 641 - Applied Hydraulics
 E&CE 603 - Energy Conversion (updating of existing course)
 E&CE 701 - Special Problems

COLLEGE OF LIBERAL ARTS

Psych 602 - Abnormal Psychology
 Psych 642 - Sensory Processes

A motion was made, seconded and approved to table the wording of the policy on the residence requirements for Masters and PhD's. (These policies were approved by the Graduate Council previously, but need to be worded for the graduate catalog.) A subcommittee chaired by Dean Schwartz was appointed for this purpose. The other members are Dr. Mandel, Dr. Gauthreaux, and Mr. Lyle.

A motion was made, seconded, and passed to appoint a subcommittee to draft appropriate guidelines and policies of admission requirements for the Master of Arts, Master of Science, and PhD programs. The committee is as follows: Dr. Mandel, chairman, Dr. Gauthreaux, Mr. Lauten, Dr. Hendricks, and Dr. Tanner.

Material was distributed regarding housing for twelve month students and the report from the South Carolina Commission on Higher Education on Graduate Productivity Study. Both were accepted as information for further consideration and discussion.

A motion was made, seconded and passed to adjourn.

MINUTES OF THE SCHOLARSHIPS AND AWARDS COMMITTEE, SEPTEMBER 26, 1974

The Scholarships and Awards Committee met at 4:00 P.M. in Room E-103 Martin Hall, Chairman Corinne Sawyer presiding. Members absent were: S. S. Melsheimer, K. N. Vickery, Susan Delony, A. M. Bloss, and M. G. Carmichael.

Dr. Sawyer opened the meeting with the announcement that M. G. Carmichael of the Financial Aid Office would become the permanent secretary for the Committee as of the next meeting.

Dr. Sawyer then distributed to the collegiate representatives complete and permanent files of restricted and unrestricted scholarships available to all colleges; appropriate correspondence and explanatory data were included in the files.

Dean Coakley distributed information on the 26 students nominated by the Screening Committee for inclusion in "Who's Who Among Students in American Universities and Colleges." Adoption of the list was moved and seconded as recommended by the Screening Committee. There were no recommendations for additions to or deletions from the list as submitted.

Dr. Sawyer then read a letter from Colonel Bloss in regard to the potential problem of restricted scholarships, scholarships specifically restricted to employees or children of employees of the donor. The committee approved Dr. Sawyer's suggestion that she confer with the Development Office which would attempt to effect a working understanding with such donors that if there were no such stipulated applicants for such restricted scholarships, the scholarships would be awarded to non-employees on the basis of usual University criteria.

A second letter from Colonel Bloss read by Dr. Sawyer concerned a request that the Scholarships and Awards Committee adjudicate the Hoke Sloan Scholarship. The committee requested further data on the scholarship before acting.

As a last item of business Dr. Sawyer re-introduced and asked for discussion of the question of raising the GPR floor for designating graduating seniors as Honors Students and for designating students as being on the Dean's List. It was agreed at Dr. Sawyer's suggestion that discussion of the matter be invited within Collegiate Committees for future recommendations and implementation.

There being no further business, the meeting was adjourned at 5:10 P.M.

Alfred L. Recoulley, Secretary

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE, SEPTEMBER 9, 1974

Present: Dean C. B. Green, John R. Ray, Hewitt D. Adams, Opal S. Hipps, Gordon E. Howard, Edward F. Olive, Tah Teh Yang, Doris R. Helms, April Baker (Undergraduate Representative), Brice Stone (Graduate Representative), J. W. Gordon Gourlay, Secretary.

Minutes of the meeting of April 8 had been approved as distributed.

Dr. John R. Ray conducted the election of officers and reviewed the work of the committee, 1973-74.

Professor Hewitt D. Adams was elected Chairman and J. W. Gordon Gourlay, Secretary.

Dean Green commented on the work of the University Library Committee, the appropriation for 1974-75 and on the policy, Library Rules Governing Fines, Notices and Delinquent and Privileged Borrowers which had been recommended by the Library Committee and subsequently approved by the Administration, July 26, 1974.

Dean Green expressed his thanks to the Committee for the work that it had accomplished during 1973-74, and to Dr. Ray for serving as Chairman.

Mr. Gourlay commented on the importance of the Committee as a policy recommending committee. Further, since the library served some 10,000 students and about 700 faculty and research personnel, including research personnel from industry, it was very important to have a committee composed of persons who were in daily contact with students and faculty whom he could keep informed of library matters and who could in turn bring to the meeting questions, suggestions and other matters which would help the library better serve the total institution.

He distributed for information and study the library rules which had been approved by the Administration in July. He emphasized the necessity for I.D. cards being presented each time a book was circulated, the reserve book policy, and other procedures which had been developed over several years. Mr. Gourlay distributed a sheet giving the following information:

STATISTICS FOR INFORMATION

Number of volumes added, 1973-74	35,052
Total volumes in library	542,697
Number of microcards	31,250 cards
Number of reels of microfilm	7,697 reels
Microfiche	162,753 units

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE, SEPTEMBER 9, 1974 (Continued)Staff

Professional	17
Technical Assistants	47
Part-time (20 hours per week) . .	3
Students (5-17 hours per week) .	31

Serials Collection

June 30, 1974 - 10,069 serial titles (annual reviews, proceedings, transactions, etc.) of which 6,217 are periodicals, i.e. received on a definite schedule.

Budget - 1974-75 - \$1,433,570. Of the budget, \$755,300 is for books, periodicals and binding.

The decision was made that the Committee meetings would continue to be held at 3:30 P.M., the second Monday of each month.

J. W. Gordon Gourlay, Secretary

CHEMISTRY

Recent Publication, "Further Synthetic Studies in the Nootkatone Sesquiterpene Group. A New Total Synthesis of ($\pm$)-Valencene and ($\pm$)-Nootkatone," by H. M. McGuire, H. C. Odom, Jr. (former Grad Stu) and A. R. Pinder (Prof), J. Chem. Soc. Perkin Transactions I, 1879, (1974).

Recent Publication, "Metalloporphyrin Synthesis," by J. C. Fanning (Prof) in Annual Reports in Inorganic and General Syntheses - 1973, Academic Press, p. 297.

CLEMSON UNIVERSITY COOPERATIVE EXTENSION SERVICE

Ruby Craven, head of Clemson University Extension Service home economics, has been honored for outstanding leadership in programs reaching across South Carolina.

The honorary society of Extension professionals, Epsilon Sigma Phi, Alpha Phi Chapter, singled out Dr. Craven for its annual award at a recent statewide meeting at Myrtle Beach.

CIVIL ENGINEERING

Billy L. Edge (Assoc Prof) has been selected to be the General Chairman of the International Symposium on Modeling Techniques in Waterways, Harbors, and Coastal Engineering. The Symposium will be held Sept. 3-5, 1975 at the Hyatt on Union Square in San Francisco. The Symposium is co-sponsored by the American Society of Civil Engineers, Department of Public Works, Canada, U. S. Army Corps of Engineers and Clemson University.

Billy L. Edge is a co-editor with Orville T. Magoon of the Proceedings of the International Symposium on Ocean Wave Measurement and Analysis. Vol. I was distributed at the Symposium which was held Sept. 9-11 in New Orleans. The Symposium was attended by 285 participants, representing 19 countries. Vol. II of the Proceedings is in process of being printed and will be available before the end of 1974.

Billy L. Edge attended a planning session in Atlanta on Oct. 17 for the South-eastern Conference on Water Supply and Wastewater Planning and Development on Coastal Shores and Islands. The conference will be held in Wilmington in early 1975 and is sponsored by the Coastal Plains Center for Marine Development Services along with the Water Resources Research Institutes and Sea Grant Programs of North Carolina, Georgia and South Carolina. Dr. Edge represented the South Carolina Water Resources Research Institute at Clemson University.

Billy L. Edge has been appointed to the Executive Committee of the Waterways, Harbors, and Coastal Engineering Division of the American Society of Civil Engineers. His period of appointment is for 3 years.

Billy L. Edge has been appointed Vice-Chairman of the Water Quality Committee of the Marine Technology Society.

Paul B. Zielinski (Assoc Prof), Walter E. Castro (Prof of Mech Engr), and Paul A. Sandifer (Assoc Marine Scientist, S.C. Marine Resources Res Institute) had a paper approved for publication in the July 1975 issue of the Fishery Bulletin entitled, "Enhanced Survival of Larval Gross Shrimp in Dilute Solutions of the Synthetic Polymer, Polyethylene Oxide."

Paul B. Zielinski has been invited as a participant in the first International Macrobrachium Workshop to be held at the Marine Research Laboratory, St. Petersburg, Fla. on Nov. 25-26.

Paul B. Zielinski, Walter E. Castro, and Paul A. Sandifer had a paper published in the German Publication Helgolander Wissenschaftliche Meeresuntersuchungen entitled, "A Simple Airlift--Operated Tank for Closed-System Culture of Decapod Crustacean Larvae and Other Small Aquatic Animals," Vol. 26, pp. 82-87, 1974.

CONTINUING ENGINEERING EDUCATION

A short course on "Building Inspection" will be presented on Nov. 6-8 at Charleston. This course is co-sponsored by the Department of Civil Engineering of Clemson University and the Personnel Division of the State of South Carolina. The course is being offered as a repeat of one offered on the Clemson campus in July. Support funds have been made available which enables the registration fee to be reduced to a nominal value for any employee of a municipal, a county, a state or a Federal agency. The course co-chairmen are J. E. Clark (Assoc Prof, CE) and William Baron (Assoc Prof, CE). The course is administered by Continuing Engineering Education.

A seminar on "Wood - A Modern Structural Material" will be presented in Room 100 of Lowry Hall from 1:30 - 4:30 on Nov. 20. The course has been arranged and is sponsored by the Department of Civil Engineering in cooperation with the Forestry Department and the Building Science Department. There is no charge for this seminar and the students in each of the above 3 curricula are especially urged to attend. The course is also open to the public and a number of representatives of the construction industry are expected to be present. The seminar co-chairmen are J. C. McCormac (Assoc Prof, CE) and S. C. Anand (Assoc Prof, CE).

ENVIRONMENTAL SYSTEMS ENGINEERING

A. R. Abernathy (Prof) attended the 45th Annual Conference of the Water Pollution Control Federation, Oct. 5-10 in Denver, Colo. He represented the South Carolina Association on the Board of Control, the governing body of the Federation.

ELEMENTARY AND SECONDARY EDUCATION

James Matthews (Prof) served as a group leader at the Seventh Annual Assistant Principals Workshop held in Columbia, Oct. 8. The topic of the group meeting was, "School Law and the Assistant Principal."

ENGLISH

Dean C. B. Green (Prof) has a review of Essays Mostly on Periodical Publishing in America: A Collection in Honor of Clarence Gohdes which was published in the Fall, 1974, issue of The Georgia Review.

FORESTRY

C. L. Lane (Assoc Prof) is co-author (with W. Witcher, Prof, Plant Pathology) of an article, "Studies on Fomes annosus in the Southeast United States," published in Southern Cooperative Series Bulletin 183 - The Relation of Soil Microorganisms to Soilborne Plant Pathogens.

GEOLOGY

Robert D. Hatcher, Jr (Assoc Prof) was elected President of the Carolina Geological Society at the annual field trip meeting, Oct. 5-7, held in Cheraw.

HISTORY

James E. Sargent (Asst Prof) has completed an Oral History for Columbia University with Clifford J. Durr, former Federal Communications Commissioner under Presidents Roosevelt and Truman.

INDUSTRIAL EDUCATION

A. F. Newton (Prof and Hd), as President of the Southeastern Industrial Arts Conference 1974, presided over the two day meeting held in Atlanta, Oct. 11-12. The theme of the 1974 Conference was "Industrial Arts in Time of Change."

LANGUAGES

Ed Arnold (Instr of German) took part in a panel at the S. C. Section of the American Association of Teachers of German meeting on Sept. 28 at S. C. State College, Orangeburg. The topic was "Methods and Materials Used in Teaching German at High Schools and Universities."

Ed Arnold was a panel member at the Southern Conference on Language Teaching, Oct. 11-12 in Atlanta. He spoke on the topic, "Foreign Languages for Profit and Pleasure."

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) attended a conference of the Association of Advanced Placement Mathematics Teachers at Milton, Mass. on Oct. 4 and served as a panel member on the program.

John Kenelly attended a meeting of the College Entrance Board's Examination Committee on Advanced Placement as the Chief Reader Designee for the Educational Testing Service. The committee meeting was held Oct. 5-6 at Boston, Mass.

James L. Flatt (Assoc Prof) has been appointed by Mr. Cyril Busbee, State Superintendent of Education, to the Committee to Study Certification Requirements for Mathematics Teachers. Members of this study committee, which is broadly representative of the educational interests of the state, were chosen from school administrators, teachers, college personnel, and representatives of the State Department of Education.

John Kenelly has been invited to serve again for the academic year 1974-75 as one of 30 members of the Consultant Bureau for the Committee on Undergraduate Programs in Mathematics. The Mathematical Association of America sponsors visits by the consultants to individual colleges to advise on mathematical programs.

Joel V. Brawley, Jr. (Prof) has been appointed by the Mathematical Association of America to serve an additional term on its Panel of Lecturers for the 1974-75 Visiting Lectureship Program. The panel consists of 64 mathematics lecturers across the nation who visit colleges and universities to stimulate interest in the mathematical sciences.

Clemson University has been awarded a contract of \$11,000 by the Office of Naval Research for a proposal entitled, "Equivalence Classes of Functions over Finite Rings with Applications to Algebraic Cryptography." J. V. Brawley is the principal investigator.

PSYCHOLOGY DEPARTMENT

Leonard J. Berger (Asst Prof) and Laretta Park (Asst Prof) participated by invitation in Tri-County TEC's fall in-service faculty development program, Sept. 10-11. They presented a full-day workshop entitled, "How Can I Motivate my Students?"

Spurgeon Cole (Assoc Prof) co-authored an article titled, "Pattern Analysis of WISC Scores Achieved by Culturally Disadvantaged Southern Blacks," in Vol 35 of the 1974 Psychological Reports. This article will appear in a forthcoming psychology text to be titled Issues in Human Behavior by Rosenberg and Rivenback.

PHYSICS AND ASTRONOMY

John A. Gilreath (Asst Prof) addressed the seminar in Electrical Computer Engineering on Oct. 10. His talk was on the Scanning Electron Microscope.

P. B. Burt (Prof) gave a colloquium at the University of South Carolina on Oct. 3. His subject was "Quantized Solitary Waves."

Beverly B. Bookmyer (Assoc Prof) has had "Epochs of Minimum Light, AK Herculis" published as I. A. U. Infor. Bull. on Var. Stars, No. 922, 1974.

CALENDAR OF CAMPUS EVENTS

- 1 -- JV Football: Ferrum Junior College, 2:00 p.m., here.
- 2 -- Optometry Pre-Admission Test, time to be announced, M101 Martin Hall.
- 2 -- Trip to Biltmore House, sponsored by the University Union. 11:00 a.m., open to students, faculty and staff, \$6.50 per person, sign up at the YMCA by Nov. 1.
- 3 -- Soccer: N.C. State, 2:00 p.m., here.
- 3 -- Architecture Exhibition: Spring Mills Traveling Art Show 1974, includes work by local artists. Rudolph Lee Gallery, College of Architecture. Gallery open 9 - 4:30 p.m. weekdays.
- 3 -- University Union Sunday Free Flick: Casino Royale. 8:00 p.m., YMCA Theater, University I.D. required, admission free.
- 4 -- Speech Nigh Contest, sponsored by the Department of English, 7:30 p.m., Daniel Auditorium, open to the public, admission free.
- 4 -- Architecture Lecture: Future Horizons in Transportation, John Hamburg, transportation planner, Bethesda, Maryland. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 4 -- Plant Pathology Seminar: Mycotoxins - A Current South Carolina Problem, Dr. James Arnett and Dr. Jesse LaPrade. 12:20 p.m., 222 Long Hall.
- 5 -- Classes Suspended
- 6 -- Short Course: Theory and Practice of Magic, sponsored by the University Union. Open to students, faculty and staff, \$5, sign up at the YMCA.
- 6 -- Management Science Seminar: Model Building With Multiple Objectives, Professor B.H.P. Rivett, University of Sussex, Brighton, England. Sponsored by the Department of Industrial Management and the Department of Mathematical Sciences. 3:00 p.m., 301 Sirrine Hall.
- 7 -- Management Science Seminar: Management Science in the United Kingdom, Professor B.H.P. Rivett, University of Sussex. Sponsored by the Department of Industrial Management and the Department of Mathematical Sciences. 3:00 p.m., 301 Sirrine Hall.
- 6 -- Agronomy Lecture: Fertilizer Situation and Outlook, Dr. G.G. Williams, TVA. Sponsored by Agronomy and Soils. 9:05 and 11:15 a.m., A-203 P&AS Building, open to the public, admission free.
- 6 -- Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 7 -- Woman's Club: Holiday Ideas with Nancy Welch, 3:15 p.m., Clemson House.
- 7-9 -- Professional Coffeehouse Act, sponsored by the University Union. 8:30, 9:30, 10:30 p.m. each night, The Gutter Coffeehouse, basement of YMCA, open to students, faculty and staff, admission 50¢ (tentative).

CALENDAR OF CAMPUS EVENTS Continued

- 7 -- Short Course: Care and Feeding of House Plants, sponsored by the University Union. Open to students, faculty and staff, \$2, sign up at the YMCA.
- 9 -- Football: North Carolina (IPTAY Day), 1:00 p.m., here.
- 8,9&10 -- International Bazaar, jewelry and other items to buy from over 20 countries. Friday; 2-5:00 p.m., 6-10:00 p.m., Saturday; 9:00 a.m.-12:00 Noon, after the game until 10:00 p.m., Sunday; 1-5:00 p.m., YMCA, open to the public.
- 10 -- Soccer: Maryland, 2:00 p.m., here.
- 10 -- University Union Sunday Free Flick: The Last Voyage. 8:00 p.m., YMCA Theater, University I.D. required, admission free.
- 11 -- Spanish Film: The Green Wall, sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 11 -- Plant Pathology Seminar: Feeding Trials and Aflatoxins and Establishment of Toxicity Levels, Dr. Pat Hamilton, N.C. State. 12:20 p.m., 222 Long Hall
- 11 -- Engineering Graduate Seminar: ICES-Academic and Practice, Dr. Leroy Z. Emkin, Georgia Tech, sponsored by the Department of Civil Engineering. 3:30 p.m., Lowry Hall Auditorium, open to the public, admission free.
- 13 -- University Union Fine Arts Film: Fidelio. 8:00 p.m., Daniel Auditorium, University I.D. required, admission free.
- 14 -- Engineering Seminar: Application of the Bio-Disk System for Industrial Wastewater Treatment, Larry Blackwell, Environmental Dynamic INC, sponsored by the Department of Environmental Systems Engineering. 4:00 p.m., 302 Rhodes.
- 14 -- Chemistry Seminar: Electrochemical and Spectroscopic Studies of Cation Radicals, R.F. Nelson, University of Georgia. Sponsored by the Chemistry Department, 8:00 p.m., 131 Brackett Hall.
- 14 -- Speakers Bureau: "Who Killed JFK?" a lecture, slide and question and answer program with journalist Bob Katz. 7:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 14 -- Chamber Music Series presents Hong Shik Min, tenor, and Linda Barlage, piano. Sponsored by the Music Department, 8:00 p.m., Daniel Auditorium, open to the public.

Make-Up Date Influenza Vaccine Clinic

There will be a clinic for Influenza vaccine for all University personnel and their dependents on Wednesday, November 6, 1974 from 4:00 p.m. to 6:00 p.m. This will be held in Room 101 of the Physics Building. There will be a charge of \$3.00 per person.

CALENDAR OF CAMPUS EVENTS Continued**WEPR Highlights**

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI, 89.3-FM, Charleston.

- 6 -- SPECIAL - Writers' Round-Table, featuring writers from Clemson hosted by Dr. Robert A. Hill of the English Department, 7:00 p.m.
- 5&12 -- Music From The Mountains: (5) Nick Hallman Encore, (12) Fiddlin Liz, 12:00 Noon and 7:45 p.m.
- 4&11 -- Shakespeare Scene-By-Scene: (4) Concluding Much Ado About Nothing. (11) Othello, parts 1-3, Mondays at 11:00 a.m.
- 2,6,9&13 -- Political Science: (2) The Nixon Aftermath-Where are We? Dr. Charles Dunn. (6,9) The Meaning of Pardon, Dr. Horace Fleming. (13) The Mid-east Update, Dr. Martin Slann. Wednesdays at 11:00 a.m., Saturdays at 6:30 p.m.
- 1&8 -- Majors and Minors: (1) Autumn Music. (8) Astrologer's Delight. Friday at 2:00 p.m.
- 6,9&13 -- Word-Go-Round: (6,9) Words from Proper Names, (13) Words from Harper's Magazine, with Herman and Mary Felder, Wednesdays at 11:30 a.m., Saturdays at 6:45 p.m.
- 7&14 -- Poetry Today: (7) Richard Wilbur, (14) T.S. Eliot, part 2, with Dr. Robert A. Hill, Clemson English Department, Thursdays at 12:00 Noon and 7:45 p.m.
- 1&8 -- Friday Lecture: (1) Alice Tetelman, "Politics of Energy and Environment Policies," (8) Orson Bean, student speakers bureau, 11:00 a.m.
- 1&8 -- Food For Thought: (1) Wild Game - Care & Cooking, (8) The Food Industry in S.C. with guest Dr. Terry Titus. Host: Marie Hindman, assistant professor of home economics in nutrition, 12:00 Noon and 7:45 p.m.
- Daily -- Carolina Weathervane, from Clemson Extension Service, S.C. Experiment Station and National Weather Service, featuring agricultural news, weathér, recommendations and county reports, 12:15 p.m. Host: Al Mason.



PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 7

November 15, 1974



FEATURED IN 'OILWAYS' – Displaying a plaque with a reproduction of an article about Clemson University featured in EXXON's "Oilways" magazine are, from left, Stanley G. Nicholas, vice president for development; President Robert C. Edwards; Dave T. Seaman, EXXON representative; and Walter T. Cox, vice president for student affairs. Seaman, a Clemson graduate, presented two of the plaques to the University. The article was produced by the Public Relations Department. "Oilways" is a major company publication with an international circulation.

J. Garner Bagnal Jr. Elected Alumni Association President

J. Garner Bagnal Jr., who served an unprecedented 10 terms as Mayor of Statesville, N.C., has been elected national president of the Clemson University Alumni Association.

He begins his term of office Jan. 1, 1975.

A 1934 graduate of Clemson, Bagnal is president and treasurer of Forest Products, Inc., Statesville. He previously served on the Alumni National Council, governing body of the Clemson Alumni Association, and was reelected in 1972 to another four-year term.

The 25,000-member Clemson Alumni Association has two basic objectives: to serve

Clemson alumni in the furtherance of their careers and to enhance the educational capability of the University.

"Aside from the various services we render Clemson alumni as a group and as individuals," Bagnal says, "our main goal is to be of service to the University as it goes about the serious business of providing the finest educational advantages possible for the more than 10,000 young men and women every year.

"We want to do everything we can to enrich the educational experiences for these students," he says.

"The way in which the Alumni Association is able to accomplish its objectives," Bagnal explains, "is through the Alumni Loyalty Fund, an annual giving program that functions as a living endowment."

Since 1956 Clemson alumni have given almost \$5-million through the Loyalty Fund to strengthen the University's overall educational program.

"Dollar Watch" Can Help You With the Family Budget

With inflation approaching an annual rate of 15 percent, family money management has become more essential than ever before. An excellent aid in planning and managing your personal spending is available right here at Clemson.

Its called "Dollar Watch" and can be ordered through the Cooperative Extension Service. "Dollar Watch" is a 8½" x 11" leaflet that folds out to a 17" x 22" budget "ledger." If you've ever tried drawing off your own 12-month budget sheet, you'll really appreciate this easy-to-use printed format that provides enough space for 41 "planned" and "actual" income and expense items for a twelve-month period. Elsewhere in the leaflet you'll find instructions for devising a spending plan and some helpful suggestions.

The leaflet was prepared by Prof. Veronica D. Carmack and Prof. W.A. Tinsley. You can get your copy by calling the Bulletin Room at extension 3261 and asking for Ag Economics Leaflet 21.

Clemson Wins Four "Double Awards of Merit" During National Music Week

The National Federation of Music Clubs has presented Clemson with four "double awards of merit" for outstanding participation in National Music Week last May.

Clemson, through its satellite production studio of the S.C. Educational Radio Network, produced several programs for the annual music observance.

The Music Department was cited for several programs, including faculty recitals, chamber music, an opera and several concerts.

The English Department received an award for two specials, "An Evening of Southern Music" and "American Landscapes."

Lily-Hall Roland of the Communications Center was cited for producing the specials, which included a program of highlights from the 1973 Fiddlers' Convention in Union Grove, N.C.

Dr. Donald K. Freeman of the Student Health Service won an award for his program of "Musica Antiqua," a presentation of ancient music and discussion of ancient musical instruments.

CALENDAR OF CAMPUS EVENTS

- 16 Declamation Contest: High school students will recite poetry in different languages for prizes. Sponsored by the Language Department. 8:00 a.m. - 3:00 p.m., Daniel Hall, open to high school students and teachers.
- 16 Football: Virginia (Parents' Day), 1:00 p.m., here.
- 16 Open House, Clemson Alumni Center, 9:00 a.m. - 12:00 Noon.
- 17 University Union Sunday Free Flick: The Trip. 8:00 p.m., YMCA Theater, University I.D. required, admission free.
- 18 Architecture Lecture: Design and Construction: Sydney Opera House with Graham Levido, University of New South Wales, Australia. 8:15 p.m., College of Architecture, Lee Hall, open to the public, admission free.
- 18 Plant Pathology Seminar: Aflatoxin Research, Dr. Urban Diener, Auburn University. 12:20 p.m., 222 Long Hall.
- 19 History Film: Dante's Inferno. Sponsored by the History Club, discussion led by Dr. J. Y. LeBourgeois. 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 19-24 Clemson Players present Ghosts, widely acclaimed social drama by Henric Ibsen. 8:00 p.m., Daniel Hall Auditorium, open to the public, admission free.
- 19 University Concert Series: Bernard Shaw's Don Juan in Hell, featuring movie and TV stars Myrna Loy, Ricardo Montalban, Werner Klemperer, and Edward Mulhare. 8:00 p.m., Littlejohn Coliseum, admission by student activity card, season ticket, or individual tickets on sale at gate.
- 20 Fort Hill Clemson Club Quarterback Luncheon, 12:00 Noon, Clemson House.
- 21 Clemson Chorale Society Christmas Concert, 8:00 p.m., Tillman Hall Auditorium, admission free.
- 21 Chemical Engineering Colloquia: Impact of the Energy Shortage on the Chemical Industry, Mr. Stanley B. Farbstein, B. F. Goodrich Chemical Company, Cleveland, Ohio. 4:00 p.m., 100 Earle Hall, open to the technical community, admission free.
- 21 Environmental Systems Engineering Seminar: Secondary Clarification in Wastewater Treatment, Dennis George. 4:00 p.m., 302 Rhodes.
- 21 Physics Lecture: Great Men and Great Moments in Nuclear Physics with Dr. John A. Wheeler who along with Niels Bohr introduced the physics community and the world to the nuclear age with their theory of nuclear fission in the 1930s. 3:30 p.m., 101 Kinard, open to the public, admission free.
- 22 University Concert Series: The Massed Bands, Pipes, Drums and Dancers of Her Majesty's Welsh Guards and Argyll and Sutherland Highlanders. 8:00 p.m., Littlejohn Coliseum, admission by student activity card, season ticket, or individual tickets on sale at gate.

- 22-23 Engineering Open House: A series of displays, demonstrations and discussions directed at providing insight into Clemson's engineering programs. To be held in selected engineering buildings from 4:00 - 10:00 p.m. on Nov. 22 and 8:00 - 12:00 Noon on Nov. 23. Reception to follow USC game in Alumni Center. Open house sponsored by the College of Engineering, reception sponsored by the Alumni Office and the College of Engineering. Open to the public.
- 23 Football: South Carolina, 1:00 p.m., here.
- 23 Open House, Clemson Alumni Center, 9:00 a.m. - 12:00 Noon.
- 24 University Union Sunday Free Flick: Mr. Roberts. 8:00 YMCA Theater, University I.D. required, admission free.
- 25 Agronomy Seminar: Plant Variety Protection Laws and Other Legislation Influencing Seed Programs of Public Developed Crop Varieties, C.S. Garrison, USDA-ARS. 4:00 p.m., A-203 P&AS Building.
- 25 Plant Pathology Seminar: Government Policies Affecting Agriculture - A Historical and Current Perspective, Dr. B.H. Robinson, Ag. Economics. 12:20 p.m., 222 Long Hall.
- 27 Thanksgiving Holidays begin after last class.
- 29-30 Basketball: IPTAY Invitational Tournament (Clemson, Middle Tennessee, Ole Miss, Pennsylvania), (29) 7:00 p.m. Middle Tennessee vs. Pennsylvania, 9:00 p.m. Ole Miss vs. Clemson. (30) 7:00 p.m. Losers vs. Losers, 9:00 p.m. Winners vs. Winners Littlejohn Coliseum.
- 29 Fort Hill Clemson Club Tip-Off Luncheon, 12:00 Noon, Clemson House.

WEPR Highlights

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI, 89.3-FM, Charleston.

- 19 Music From The Mountains: Nick Hallman Again, 12:00 Noon and 7:45 p.m.
- 18,25 Shakespeare Scene-By-Scene: Othello, parts 2 and 3, 11:00 a.m.
- 16,20, 23,27,30 Political Science: (16) The Mid-East Update with Dr. Martin Slann, (20,23) Amnesty, with Dr. Horace Fleming, (27,30) Cuban Recognition with Dr. Mary Jeanne Martz. Wednesdays at 11:00 a.m., Saturdays at 6:30 p.m.
- 20,27 Physical Science in the Real World: (20) Textile Careers, (27) Fire and Flammability of Fibers, part 1.
- 15,22,29 Majors and Minors: (15) Brass Tacks, (22) Music for St. Cecilia's Day, (29) Music for Cervantes, 2:00 p.m.
- 16,20, 23,27,30 Word-Go-Round: (16) Words from Harper's Magazine, (20,23) Colorful Slang, (27, 30) Words from The Atlantic, with Herman and Mary Felder. Wednesdays at 11:30 a.m., Saturdays at 6:45 p.m.
- 21,28 Poetry Today: (21) W.B. Yeats, (28) Thanksgiving Poems, 12:00 Noon and 7:45 p.m.
- 15,22,29 Food for Thought: (15) Thanksgiving Dinner - Serve It Safely, (22) The World's Food with guest Rose Davis, (29) Meals in Minutes - Proper Equipment with guest Helen McMillan. Host: Marie Hindman, assistant professor of home economics in nutrition. 12:00 Noon and 7:45 p.m.

aily

Carolina Weathervane, from Clemson Extension Service, S.C. Experiment Station and National Weather Service, featuring agricultural news, weather, recommendations and county reports, 12:15 p.m. Host Al Mason.

Minutes Of THE ADMINISTRATION-FACULTY-STUDENT COUNCIL; Sept.25, 1974

The duly appointed members of the Clemson University Administration-Faculty-Student Council met for organizational purposes on Wednesday afternoon, September 25, 1974 in the Board Room of Sikes Hall.

The following were present: C. Ronald Dillon, Kenneth E. Carpenter, Lewis T. Fitch, H. Frank Qualls, Thomas E. Skelton, Jr., Robert G. Merrill, Rodney M. Sprott, E. H. McCarter, M. N. Lomax, George Moore, and Joseph B. McDevitt, ex-officio.

Admiral J. B. McDevitt, Vice President for Executive Affairs, presided as temporary chairman and called the meeting to order at 4:10 p.m.

ACTION: Robert G. Merrill was unanimously elected Chairman of the Council.

Mr. Merrill assumed the chair and called for nominations for secretary.

ACTION: George Moore was unanimously elected secretary of the Council.

Acting in general consent, the Council set regular meetings for the first Tuesday of each month at 4:00 P.M. in the Board Room of Sikes Hall, the next meeting to be November 5, 1974; directed the secretary to forward approved minutes of AFSC meetings to the Public Relations office for use in the University Newsletter, and to distribute copies of the minutes following each meeting to members of the Council, the President of the University, the Executive Officers and to the Presidents of the Student and Faculty Senates; defined a quorum for Council meetings as five voting members including at least one from each of the areas represented on the Council.

Members of the Council were asked to submit topics for discussion to the chairman with the thought that advance agenda could then be developed for future meetings. Several subjects were mentioned as topics for consideration. Among them: the inadequacy of two-way communication among and between administration, faculty and students and the attitudes of each of these groups toward the others; long range planning; the increasing number of students graduating with honors; title IX of the Civil Rights Act. Admiral McDevitt was asked to seek any input that the President might have for the committee to consider.

There being no further business the Council adjourned at 4:55 p.m.

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 4, 1974

The Undergraduate Council met in the Conference Room, E-103A Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Claire O. Caskey, Bingham M. Cool, Ralph W. Gilchrist, Viktor Jonkoff (Student Representative), Donald R. LaTorre, Charlie R. Mitchell, Gloria Tanner, Edward A. Vaughn, Kenneth N. Vickery, and Charles W. Dunn (Visitor).

The minutes of the September 6, 1974, meeting were approved as distributed.

College of Agricultural Sciences

Revisions to the Entomology and Economic Zoology concentrations were approved. (A copy of the revised programs is attached to these minutes.)

The request for approval of a Program in Economic Biology for Pre-Veterinary Medicine was approved. (A copy of the proposed program is attached to these minutes.)

The following courses and course changes were approved:

Ent 403	Field Crop Insects, 3 cr (2 and 3)
Ent 404	Structural, Industrial, and Household Insects, 3 cr (2 and 3)
Ent 405	Insect Pests of Ornamental Plants and Shade Trees, 3 cr (2 and 3)
Ent 469	Aquatic Insects, 3 cr (2 and 3)
Gen 461	Biometrical Genetics, 3 cr (3 and 0)
Hort 414	Retail Flower Business, 2 cr (2 and 0)
Hort 416	Floral Design, 2 cr (1 and 3)

College of Liberal Arts

The following courses were approved:

Pol Sc 424	Administrative Law, 3 cr (3 and 0)
Pol Sc 427	Government Personnel Administration, 3 cr (3 and 0)

College of Nursing

The following curriculum changes were approved:

Delete elective first semester Junior year; add Sociology 202 first semester, Junior year; delete Sociology 202 summer session.

Change prerequisite for nursing courses numbered 300 and above from Nursing 208 to read as follows:

MINUTES OF THE UNDERGRADUATE COUNCIL, OCTOBER 4, 1974 (Continued)

The physical, biological and social sciences and mathematics courses scheduled for the Freshman and Sophomore years are prerequisite to nursing courses numbered 300 and above.

Delete Nursing 425, Independent Study in Nursing, 7 credits, (3, 12). Add new courses; each senior student will be required to enroll in eight hours of Nursing Electives.

The following new courses were approved:

- Nurs 426 Independent Study in Nursing, 4 cr (2 and 6)
- Nurs 431 Care of the Hospitalized Child with Long Term Illness, 4 cr (2 and 6)
- Nurs 432 Nursing Care of the Person in Crisis, 4 cr (2 and 6)
- Nurs 433 Transactional Analysis and Nursing, 4 cr (2 and 6)
- Nurs 434 Teaching Role of Nurse Practitioner, 4 cr (2 and 6)
- Nurs 435 Care of Individuals with Complex and Critical Illness Problems, 4 cr (2 and 6)
- Nurs 436 Nursing Care of Acutely Injured Person, 4 cr (2 and 6)
- Nurs 437 Introduction to School Health Nursing, 4 cr (2 and 6)

The total semester hours credit required for the baccalaureate Degree in Nursing will be 130.

College of Physical, Mathematical, and Biological Sciences

The following courses and course changes were approved:

- Astr 208 Selected Topics in Modern Astronomy, 3 cr (3 and 0)
- Ch 443 Research Problems, 3 cr (0 and 9)
- Phys 452 Nuclear and Particle Physics, 3 cr (3 and 0)
- Zool 480 Developmental Biology, 3 cr (3 and 0)
- Zool 481 Developmental Biology Laboratory, 1 cr (0 and 1)

A committee to study duplication of courses at undergraduate level was appointed. Members of the committee are Professor Brown (Chairman), Dr. Briscoe, and Dr. Vaughn.

ECONOMIC BIOLOGY

The Economic Biology curriculum includes three areas of concentration: Economic Zoology, Entomology and Plant Pathology.

Economic Biology Curriculum

First SemesterSecond Semester

Freshman Year

AGRIC 101 Intro to Agric	1 (1,0)	CH 102 or CH 112 General Chemistry [*]	4 (3,3)
BOT 101 Plant Biology	3 (3,0)	ENGL 102 English Composition	3 (3,0)
BOT 103 Plant Biology Lab	1 (0,2)	MATH 106 Calculus of One Var.	4 (4,0)
or ZOOL 101 Animal Biology	3 (3,0)	ZOOL 101 Animal Biology	3 (3,0)
and ZOOL 103 Ani. Biol. Lab	1 (0,2)	ZOOL 103 Animal Biology Lab	1 (0,2)
CH 101 General Chemistry	4 (3,3)	or BOT 101 Plant Biology	3 (3,0)
ENGL 101 English Composition	3 (3,0)	and BOT 103 Plant Biology Lab	1 (0,2)
MATH 103 College Algebra	2 (2,0)	Elective	1
MATH 104 Trigonometry	2 (2,0)		<u>16</u>
Elective	1		
	<u>17</u>		

Sophomore Year

CH 223 Organic Chemistry	3 (3,0)	AG EC 202 Agric. Economics	3 (3,0)
CH 227 Organic Chemistry Lab	1 (0,3)	AGRON 202 Soils	3 (2,2)
ECON 201 Prin. of Economics	3 (3,0)	CH 224 Organic Chemistry ^{***}	3 (3,0)
ENT 301 Gen Entomology	3 (2,3)	GEN 302 Genetics	4 (3,3)
History-Literature Requirement ^{**}	3 (3,0)	History-Literature Requirement ^{**}	3 (3,0)
Elective	3	Elective	1
	<u>16</u>		<u>17</u>

^{*}Economic Biology students take CH 112.

^{**}One course to be selected from each of the following groups. (At least one literature course is required.)

Group 1: Engl 203, 205, 207, 231, Hist 171, 172

Group 2: Engi 204, 206, 208, 231, Hist 172, 173

^{***}Ch 228 is suggested as an elective.

ECONOMIC ZOOLOGY CONCENTRATION

Junior Year

First Semester

ACCT 201 Principles of Accounting . . .	3 (3,0)
or AG EC 305 Agric. Bus. Anal. . . .	3 (2,3)
or EX ST 301 Intro. Statistics	3 (2,2)
ENGL 301 Public Speaking	3 (3,0)
PHYS 207 General Physics	4 (3,2)
ZOOL 201 Invertebrate Zool	4 (3,3)
Elective	3
	<u>17</u>

Second Semester

MICRO 305 General Microbiology. . .	4 (3,3)
WB 412 Wildlife Management	3 (2,3)
WB 416 Fish Culture	3 (2,3)
ZOOL 202 Vertebrate Zool	4 (3,3)
Elective	3
	<u>17</u>

Senior Year

ENT 468 Introduction to Research . . .	2 (1,3)
ZOOL 302 Vertebrate Embryology . . .	4 (3,3)
ZOOL 456 Parasitology	4 (3,3)
Social Science Elective ¹	3
Elective	4
	<u>17</u>

ZOOL 411 Animal Ecology	3 (2,3)
ZOOL 460 General Physiology	4 (3,3)
Social Science Elective ¹	3
Elective	7
	<u>17</u>

134 Total Semester Hours

ENTOMOLOGY CONCENTRATION

Junior Year

ENGL 301 Public Speaking	3 (3,0)	ACCT 201 Principles of Accounting . .	3 (3,0)
ENT 405 Insect Morphology	4 (3,3)	or AG EC 305 Agric. Bus. Anal. . .	3 (2,3)
ENT 468 Introduction to Research	2 (1,3)	or EX ST 301 Intro. Statistics . . .	3 (2,2)
PHYS 207 General Physics.	4 (3,2)	ENT 410 Insect Taxonomy	3 (1,6)
ZOOL 201 Invertebrate Zoology	4 (3,3)	MICRO 305 General Microbiology. . .	4 (3,3)
	<u>17</u>	PHYS 208 General Physics	4 (3,2)
		Elective	<u>3</u>
			17

Senior Year

ENT 461 Special Problems in Entomology and Econ. Zool.	1 (1,0)	ENT 462 Seminar	1 (1,0)
PL PA 401 Plant Pathology.	3 (2,3)	ENT 470 Insect Physiology	3 (2,3)
ZOOL 411 Animal Ecology	3 (2,3)	ENT 480 Insect Pathology	3 (2,3)
Entomology Elective ²	3 (2,3)	Entomology Elective ²	3 (2,3)
Social Science Elective ¹	3	Social Science Elective ¹	3
Elective	<u>4</u>	Elective	<u>3</u>
	17		17

134 Total Semester Hours

¹ Social Science Electives to be selected from the following: Phil 201, Pol Sc 101, Psych 201, RS 301, 401, Soc 201.

² Entomology Electives. At least 6 credits must be selected from the following: Ent 401, 402, 455, 458.

BASIC PROGRAM FOR ANIMAL SCIENCE, DAIRY SCIENCE,
ECONOMIC ZOOLOGY, POULTRY SCIENCE, AND ZOOLOGY MAJORS

FRESHMAN YEAR

First Semester		Second Semester	
BOT 101 Plant Biology	3 (3,0)	AGRIC 201 Intro to Animal Ind.	3 (2,3)
BOT 103 Plant Biology Lab	1 (0,2)	CH 112 General Chemistry	4 (3,3)
or ZOOL 101 Animal Biology	3 (3,0)	ENGL 102 English Composition	3 (3,0)
and ZOOL 103 Ani. Biol. Lab.	1 (0,2)	ZOOL 101 Animal Biology	3 (3,0)
CH 101 General Chemistry	4 (3,3)	ZOOL 103 Animal Biology Lab	1 (0,2)
ENGL 101 English Composition	3 (3,0)	or BOT 101 Plant Biology	3 (3,0)
MATH 106 Calculus of One Var	4 (4,0)	and BOT 103 Plant Biology Lab	1 (0,2)
Social Science Elective*	3 (3,0)	Social Science Elective*	3 (3,0)
Elective	1	Elective	1
	19		18

PRE-VETERINARY MEDICINE - ECONOMIC ZOOLOGY MAJOR

SOPHOMORE YEAR

First Semester		Second Semester	
CH 223 Organic Chemistry	3 (3,0)	CH 224 Organic Chemistry	3 (3,0)
CH 227 Organic Chemistry Lab.	1 (0,3)	CH 228 Organic Chemistry Lab.	1 (0,3)
ECON 201 Prin of Economics	3 (3,0)	History-Literature Requirement**	3 (3,0)
History-Literature Requirement**	3 (3,0)	NUTR 201 Intro. to Nutrition	3 (3,0)
PHYS 207 General Physics	4 (3,2)	PHYS 208 General Physics	4 (3,2)
ZOOL 201 Invertebrate Zoology	4 (3,3)	ZOOL 202 Vertebrate Zoology	4 (3,3)
or ZOOL 202 Vertebrate Zool	4 (3,3)	or ZOOL 201 Invertebrate Zool	4 (3,3)
	18		18

*¹ Social Science Electives to be selected from Hist 101, 102, Phil 201, Pol Sc 101, Psych 201, RS 301, 401, Soc 201.

**² One course to be selected from each of the following groups. (At least one literature course is required.)

Group 1: Engl 203, 205, 207, 231, Hist 171, 172

Group 2: Engl 204, 206, 208, 231, Hist 172, 173

JUNIOR YEAR

ENT 301 General Entomology	3 (2,3)
ENT 468 Introduction to Research	2 (1,3)
ENGL 301 Public Speaking	3 (3,0)
ZOOL 302 Vertebrate Embryology	4 (3,3)
ZOOL 456 Parasitology	4 (3,3)
	<u>16</u>

ENT 455 Med. and Vet.	
Entomology	3 (2,3)
GEN 302 Genetics	4 (3,3)
MICRO 305 Gen Microbiology :	4 (3,3)
WB 412 Wildlife Management.	3 (2,3)
ZOOL 301 Comp. Vert Anatomy	3 (2,3)
	<u>16</u>

SENIOR YEAR

See class advisor for course requirements.

FACULTY RESEARCH COUNCIL MINUTES, AUGUST 30, 1974

The initial meeting of the Faculty Research Council was held Friday, August 30, 1974 at 2 P.M. in the Conference Room of E-103 Martin Hall. Dean Schwartz called the meeting to order. Those present were: Dr. R. W. Henningson, Dr. Lloyd H. Blanton, Dr. O. John Jacobus, Prof. George C. Means, Jr., Dr. Edwin M. Coulter, Dr. Gwendolen Lee, Dr. Robert W. McLellan, Dr. Billy L. Edge, Dr. D. W. Lyons, Dr. Merle Shepard, and Mr. John C. Zimmerman.

The frequency of Council meetings, date and time were discussed. A motion was made, seconded and approved that the last Friday of every month at 1:15 P.M. would be the regular meeting date of the Council.

Dean Henningson was given the floor to discuss the activities and functions of the former Faculty Basic Research Committee. Discussion was then held concerning the establishment of a Council standing committee for the faculty research grant responsibility. A motion was made, seconded, and approved that a Faculty Research Committee be formed with the Assistant Dean of University Research (ex-officio) as Chairman. The Faculty Research Committee will consist of a representative from each college who will be recommended by the college dean and appointed, to staggered three year terms, by the Chairman of the Council. The Committee will report its activities to the Council as appropriate.

Discussion was held concerning the name of the Faculty Research Council. It was moved, seconded and approved that the present name be changed from Faculty Research Council to University Research Council. Dean Schwartz will discuss this matter with Dean Hurst.

Copies of the SUBSTITUTE RESOLUTION ON THE CREATION OF A FACULTY RESEARCH COUNCIL (FS-74-3-3) concerning the functions, activities and responsibilities of the Faculty Research Council were distributed as information. Discussion was then held concerning the functions of the Council as specified in the resolution.

It was suggested and agreed that agenda items for Council meetings be submitted one week prior to the meetings.

A motion was made, seconded and approved to adjourn the meeting.

BIOCHEMISTRY

Recent publication: J. M. Shively (Prof and Hd) was author of a review article, "Inclusion bodies of prokaryotes." *Ann. Rev. Microbiol.* 28:167-187.

J. M. Shively presented a seminar at the University of Texas entitled, "Carboxysomes and carbon dioxide fixation in autotrophic microbes."

CHEMISTRY

Keith McDowell (Asst Prof) served as chairman for one session of the Sixth Southeastern Magnetic Resonance Conference held at Clemson Oct. 3. He presented a paper, "A Diagrammatic Perturbation Theory Analysis of ESR Coupling Constants."

For the third consecutive year the Student Affiliate Chapter of the American Chemical Society has been selected as an outstanding chapter. C. B. Bishop (Assoc Prof) is faculty advisor and Michael M. Thomason (Undergrad Stu) is president of the chapter. This group will host the 7th Annual Southeastern Conference of Undergraduate Student Chemists, April 3-5, 1975.

Recent publication of A. R. Pinder (Prof) and W. D. Saunders (Grad Stu): "Hydration of 3-Methyl-3-buten-2-one," *J. Organic Chemistry* 39, 3061 (1974).

The following faculty members and graduate students participated in the Southeastern Regional Meeting of the American Chemical Society in Norfolk, Va., Oct. 23-25:

F. J. Lindstrom (Prof) presided over one section and presented a paper (with J. E. McGill, former Grad Stu), entitled: "Ultraviolet Studies of Some Anions of Sulfur."

C. B. Bishop (Assoc Prof) and M. B. Bishop (Assoc Prof) presented a paper entitled, "Isozymes of Creatine Phosphokinase."

C. B. Bishop presented a paper entitled, "Device for Playing with Marbles and Simulating Atomic Nuclei."

J. F. Geldard (Assoc Prof) and W. L. Johnson III (Grad Stu) presented a paper, "Study of the 2,2'-Dithiazolylamine Ligand System and Its Complexes."

J. F. Geldard and E. M. Gouge (Grad Stu) presented a paper, "Metal Complexes of Unsymmetrical, Heterocyclic Secondary Amines."

O. J. Jacobus (Assoc Prof) and J. E. Geddie (Grad Stu) presented a paper entitled, "Synthesis and Chemistry of Chiral Tetraamine Complexes of Co(III)."

CHEMISTRY (Continued)

A. L. Beyerlein (Assoc Prof) and J. Chou (Grad Stu) presented a paper entitled, "Thermogravitational Thermal Diffusion Studies in Methanol-Benzene Mixtures."

Recent publication of G. Powell (Assoc Prof) and J. Jacobus (Assoc Prof), "The Non-Equivalence of the Phosphorous Atoms in Cardiolipin," Biochemistry, 13, 4024 (1974).

G. Powell and J. Jacobus presented a paper on, "The Asymmetry of Diphosphatidylglycerol," at the 9th Regional Meeting on Lipids held at Clemson on Oct. 28.

CIVIL ENGINEERING

Parviz F. Rad (Asst Prof) attended the first symposium on Energy Resource Alternatives held at the University of Texas at Arlington and sponsored by Student Competitions on Relevant Engineering. The purpose of this symposium was to discuss competition rules and technical problems related to energy system development. Clemson University entered 19 teams in the competition.

Subhash C. Anand (Assoc Prof) presented a paper entitled, "Inelastic Analysis of a Rolling Disk," at the 11th annual meeting of the Society of Engineering Science Inc., held at Duke University on Nov. 11-13.

Subhash C. Anand has been invited by the National Science Foundation to serve on a panel to review proposals for the Program of Faculty Research Participation in the Division of Higher Education in Science. The panel met in Washington, D.C. on Nov. 14-16.

The South Carolina Asphalt Pavement Association has given \$575 to the Department of Civil Engineering to assist the department through support of activities related to asphalt and paving technology.

COLLEGE OF ENGINEERING

The College of Engineering has received electronic test instrumentation valued in excess of \$200,000 from NASA, Marshall Space Flight Center under a college grant from the National Science Foundation. This equipment will be used to further develop teaching and research laboratories in departments throughout the college.

COLLEGE OF ENGINEERING (Continued)

B. E. Gilliland (Asst to the Dean) presented a paper entitled, "An All-Digital Tensile Test System" at the 1974 International Instrument Society of America Conference held in New York City on Oct. 28-30. The paper was co-authored by J. L. Dorrity, Director of Technical Research, Greenwood Mills.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

The joint Governor's-Legislative Committee to study the textile industry met on Oct. 18 in Sirrine Hall. The committee is made up as follows: SENATORS: John D. Long III, Chairman, Robert C. Lake, Jr., Vice Chairman, Frank L. Roddey, W. Howard Ballenger, and David S. Taylor; REPRESENTATIVES: T. W. Edwards, Jr., Carroll A. Campbell, Jr., Caldwell T. Hinson, Patrick B. Harris, Joe S. Holland; GOVERNOR'S APPOINTEES: Marvin R. Watson, A. J. Head, and Wallace D. Trevillian, Dean, College of Industrial Management and Textile Science. The program, on research topics in the College of I.M. & T.S. was presented by D. W. Lyons (Assoc Prof, Textiles), R. H. Barker (J. E. Sirrine Prof, Textiles), John Hatcher (Asst Prof, Textiles), and Rodney Mabry (Asst Prof, Econ).

CONTINUING ENGINEERING EDUCATION

A short course on "Low Maintenance - Technology Simple Wastewater Treatment Systems to Meet 1977 Effluent Standards" will be presented on Nov. 21 and Dec. 6-7 in Room 302 Rhodes Research Center. The course is sponsored by the Department of Environmental Systems Engineering. This short course has been designed to meet the needs of the practicing Engineer and Regulatory Personnel who are responsible for the design, installation and/or operations of Low-Maintenance, Technology-Simple Wastewater Treatment Systems. The course chairman is Linvil G. Rich (Prof, ESE). The course is administered by Continuing Engineering Education.

"Engineering Open House" will be presented Nov. 22-23 by the College of Engineering. There will be many exhibits and projects demonstrating the work of Engineering students. All laboratories and facilities will be exhibited to visitors to the campus. There will be supplementary exhibits borrowed from other sources which effectively demonstrate Engineering Applications. To encourage student participation and to provide recognition for the work involved, the College of Engineering will conduct two contests to select the best projects and exhibits. One contest will be open to any group of graduate students in Engineering and the second contest to any group of undergraduate Engineering students. For each contest the top four winners will be recognized. Advance responses indicate that close to 2000 high school and junior high students will travel by bus to Clemson to participate in the Friday activities. The College of Engineering invites you to come see what the Engineering student of today is like and what he is learning. "Engineering Open House" will be closed with a post-game open house at the Alumni Center sponsored by the Alumni Association and the College of Engineering.

ECONOMICS

Holley Ulbrich (Assoc Prof) is principal investigator on a project funded by the Appalachian Council of Government entitled, "Recreational Impact of I-85, Scenic Highway 11, and Lakes Hartwell, Keowee, and Jocassee in Anderson, Oconee, and Pickens Counties." Other investigators on the project are T. Bruce Yandle (Assoc Prof and Hd) and Cliff Patrick (Visit Asst Prof).

Alejandro Velez (Instr) presented a paper entitled, "Remediation and Economics in Learning: Comment on Experimental Findings" Atlantic Economic Journal, Volume II, No. 2, Nov. 1974), at the Atlantic Economic Conference in Richmond, Va., Sept. 27-28.

Rodney Mabry (Asst Prof) has received a \$113,797 grant through the Law Enforcement Assistance Administration of the U.S. Department of Justice to study "The Economics of the Provision of State and Local Judicial Services." Holley Ulbrich, Hugh Macaulay (Alumni Prof) and Susan Brown (Assoc Prof, IM) will also participate in the 18 month project.

Holley Ulbrich, Dudley Blair (Asst Prof) and Rodney Mabry attended the Eastern Economic Association Convention in Albany, N.Y., Oct. 25-27 where each served as a discussant on papers in transit costs, health care, and the economics of crime, respectively. Dr. Ulbrich is South Carolina Area Representative for the Association.

Holley Ulbrich has an article entitled, "Multinational Corporations: Problems and Promise" in the forthcoming fall issue of the Clemson Review of Industrial Management and Textile Science.

Ralph Byrns (Asst Prof) participated in a series of seminars on the operations of the Federal Home Loan Bank and attended the annual meeting of the Board of Directors for the Southeastern United States Regional Bank in Williamsburg, Va., Oct. 25-26.

ELEMENTARY AND SECONDARY EDUCATION

H. Jack Feldman (Asst Prof) spoke to the faculty of the R. D. Anderson Vocational Center on "Teacher Liability in the Vocational Schools" on Oct. 25 at the school in Moore.

H. Jack Feldman spoke to the fall meeting of the South Carolina Association of Elementary School Principals in Columbia on Nov. 7. The topic was "An Act to Provide for the Employment and Dismissal of Teachers."

ENGLISH

V. A. Rudowski (Assoc Prof) has published "The Theory of Signs in the Eighteenth Century" in the current issue of Journal of the History of Ideas.

ENGINEERING SERVICES

The Division of Engineering Services has received machining equipment valued at \$45,000 from NASA, Marshall Space Flight Center under a college grant from the National Science Foundation. This equipment will be used to upgrade the engineering machine shop laboratory in Freeman Hall. The laboratory is used by the Engineering and Industrial Education programs.

ENVIRONMENTAL SYSTEMS ENGINEERING

J. F. Andrews (Prof) and W. A. Weers (Ph.D. Clemson, Prof, Univ of Colo) presented a paper entitled, "The Effect of Contacting Patterns on the Transient Response of Activated Sludge Systems" at the 47th annual conference of the Water Pollution Control Federation, Denver, Colo., Oct. 8.

J. F. Andrews and R. A. Poduska (Ph.D. Clemson, Project Engineer Tenn Eastman) presented a paper entitled, "A Study of the Dynamics of Nitrification in the Activated Sludge Process" at the 47th annual conference of Water Pollution Control Federation, Denver, Colo., Oct. 9.

J. F. Andrews has been appointed as an alternate delegate to represent the Association of Environmental Engineering Professors on the United States of America National Committee of the International Association on Water Pollution Research.

J. F. Andrews has been appointed by Dr. Norman Hackerman, President, Rice University as a member of the Rice University Advisory Council in Engineering.

Ray Abernathy (Prof) was elected Vice Chairman of South Carolinas' Board of Certification for Environmental Systems Operators at a Board meeting in Columbia on Sept. 12. At this same meeting the Certification Board unanimously accepted the water and wastewater treatment plant operators' correspondence courses developed by Clemson University on the basic references for developing certification examinations. The executive committee of the Water and Pollution Control Association also approved this action the next day.

GEOLOGY

R. D. Hatcher, Jr. (Assoc Prof) presented an invited lecture entitled, "Plate Tectonics" to the Sigma Xi Club at Western Carolina University, Cullowhee, N. C. on Oct. 16.

HISTORY

W. F. Steirer, Jr. (Asst Prof) has had an article published in Oct. 1974 issue of the Southern Review called, "The Marxist-Romantic Historian of the South: Eugene D. Genovese."

W. F. Steirer, Jr. presented a paper before the Ninth Annual Northern Great Plains History Conference at Mankato, Minn. on Oct. 18, entitled "Slave or Super-Slave, Who Really did Labor in the Southern Cotton Fields?"

Jerome V. Reel, Jr. (Assoc Prof) delivered a paper entitled, "On the Writing of Medieval Biography" to the Carolina Symposium on British Studies at Appalachian State University, Boone, N.C., Oct. 10.

Patricia K. Hill (Assoc Prof) delivered a paper entitled, "Robert Walpole and the Jacobite Threat" to the Carolina Symposium on British Studies at Appalachian State University, Boone, N.C., Oct. 10.

Hewitt D. Adams (Asst Prof) delivered a paper entitled, "The Cultural Revolution Continues, " at the Duquesne Forum, Duquesne University, Pittsburgh, Pa., Oct. 30.

C. Alan Grubb (Asst Prof) delivered a paper entitled, "The Duc De Broglie, President MacMahon and the Seize Mai Crisis of 1877" at the Duquesne Forum, Duquesne University, Pittsburgh, Pa., Oct. 30.

W. F. Steirer, Jr. delivered a paper entitled, "Perceptions of Black People in the Revolutionary American Press - A Negative Response to Freedom and Emancipation" to the Duquesne Forum, Duquesne University, Pittsburgh, Pa., Nov. 1.

Thomas M. Verich (Asst Prof) delivered a paper entitled, "The Nightmare Alliance: Italo-German Relations in the Eyes of British and French Diplomats During the Italo-Ethiopian Crisis" at the Duquesne Forum, Duquesne University, Pittsburgh, Pa. on Nov. 1.

HORTICULTURE

J. R. Haun (Prof) presented an invited seminar entitled, "Using Wheat-Environment Relationships to Predict Wheat Yields: for the Department of Agronomy, Kansas State University, Manhattan, Kansas on Sept. 26.

HORTICULTURE (Continued)

J. R. Haun (Prof) traveled to three substations and the headquarters of the Kansas State Agricultural Experiment Station to provide instruction in the observation of wheat growth and environmental variables, and negotiate cooperation in the collection of data to be used in a research contract, Sept. 21-27. The objective of this contract, funded by NASA in the amount of \$61,000, is the development of wheat yield prediction models based on weather variables.

INDUSTRIAL EDUCATION

W. E. West (Assoc Prof) has been elected to serve a second term as Secretary-Treasurer of the Southeastern Industrial Arts Conference.

INDUSTRIAL MANAGEMENT

W. W. Menke (Assoc Prof) presented a speech, "The Use of Forecasting in a Manufacturing Environment," at the Oct. 15 meeting of the Charlotte, N.C. Chapter of the American Production and Inventory Control Society.

LANGUAGES

H. E. Stewart (Prof and Hd) has published an article entitled, "The Case of the Lilac Murders: Jean Genet's Haute Surveillance," in The French Review, Vol. XLVIII, No. 1 (Oct. 1974), pp. 87-94.

S. Carl King (Asst Prof) has published an article entitled, "Symbolic Use of Color in Casona's La Sirena Varada," in Romance Notes, Vol. XV, No. 2, Winter, 1973, pp. 226-229.

The Twenty-Fourth Annual Mountain Interstate Foreign Language Conference was held on our campus Oct. 1-12. More than 200 scholars attended, including several from states outside the conference area. The program included 117 papers in French, German, Spanish, Classics, Comparative Literature, Linguistics, and Teaching Techniques. Gaston J. Fernandez (Assoc Prof, Spanish) is President of the Conference. Clemson faculty who chaired section meetings were: Judith Melton (Asst Prof, German), Patricia Wannamaker (Assoc Prof, German), Samuel King (Asst Prof, Spanish), R. R. McGregor (Assoc Prof, French), and Cynthia Williams (Visit Asst Prof, French).

MECHANICAL ENGINEERING

Neil K. Cooperrider of the Mechanical Engineering Department, Arizona State University, will present a seminar entitled, "Railway Truck Response to Random Rail Irregularities." The seminar will be given on Nov. 22, 3:00 P.M. in Rhodes 302. Coffee will be served after the seminar.

MATHEMATICAL SCIENCES

John Kenelly (Prof and Hd) has been appointed by the Mathematical Association of America to serve an additional term on its Panel of Lecturers for the 1974-75 Visiting Lectureship Program. The panel consists of 64 mathematics lecturers across the nation who visit colleges and universities to stimulate interest in the mathematical sciences.

J. V. Brawley (Prof) has recently published the paper, "Power Sums of Matrices over a Finite Field" in the Duke Mathematical Journal 41 (1974). Co-authors were Professors L. Carlitz (Duke) and Jack Levine (N.C. State).

J. C. Peck (Assoc Prof) gave a talk entitled, "Design Considerations for On-Line Information Systems," at the University of North Carolina at Charlotte, on Oct. 11.

PHYSICS AND ASTRONOMY

Beverly B. Bookmyer (Assoc Prof) has been granted use of the observing facilities at Cerro Tololo Inter-American Observatory in LaSerena, Chile, South America during Feb. 1975.

Professor John A. Wheeler will give the physics department colloquium on Nov. 21. His talk, "Great Moments and Great Men in Nuclear Physics," will be at 3:30 p.m. in Kinard 101. Prof. Wheeler is one of the world's outstanding nuclear physicists. His liquid drop model (with Bohr) gave the first understanding of the mechanism of nuclear fission.

B. V. Bronk (Assoc Prof) published "Kinetic Cell-cycle Analysis of a Cultured Mammalian Cell Population" in Biophysical Journal, 14, 607, Aug. 1974. His collaborators were Dienes of Brookhaven National Laboratory and Schindler and Gautschi of the Institute of Pathology in Berne, Switzerland.

Carlton W. Ulbrich (Assoc Prof) presented the results of his analysis of hailstorm data to the National Hail Research Experiment Advisory Panel at the National Center for Atmospheric Research in Boulder, Colo. on Oct. 18. The analysis has been published in a technical report entitled, "Analysis of 1972 NHRE Hailpads to Determine the Effects of Seeding Hailstorms in Northeast Colorado - Preliminary Results."

John A. Gilreath (Asst Prof) addressed the student section of Microbiology Society on Oct. 21 in Room 1, Kinard. His talk was on the "Scanning Electron Microscope."

POULTRY SCIENCE

A paper, "Dry vs. Liquid Smoke Curing of Turkeys," by J. B. Cooper (Assoc Prof) and Marion Jenkinson (Undergrad Stu) was published in Poultry Science 53: 1355-1358.

A paper, "Albumen Quality and Shell Thickness as Affected by Time of Gathering," by J. B. Cooper and W. E. Johnston (Prof) was published in Poultry Science 53: 1519-1521.

A paper, "Photoperiods for Layers," by J. B. Cooper and B. D. Barnett (Prof and Hd) was published in Proceedings of XV World Poultry Congress, Aug. 15, 1974, pp. 423-424.

PROFESSIONAL DEVELOPMENT

"Inflation, Problems of the American Economy" is a one-day seminar to be held in Sirrine Hall, Nov. 20. Ralph Byrns, Edwin Ireland, Rodney Mabry, Russell Shannon, Holley Ulbrich, and Bruce Yandle, all members of the Department of Economics, will lecture in this course.

Clifford H. Patrick (Visit Asst Prof, Econ) is the chairperson for "Legal and Administrative Aspects of Nuclear Power Generation," a seminar to be presented in the College of IM & TS, Nov. 21.

Robert L. Brown (Visit Prof, IM) will present a two-day seminar, "Managing Employees with Special Problems," on Dec. 3-4. This is a Professional Development Program.

L. Howard Olson (Asst Prof, Textile Engr, Georgia Institute of Technology) will be the chairperson for a course, "Introduction to Knitting" to be held in Sirrine Hall on Dec. 11-12. E. A. Vaughn (Assoc Prof, Textiles), Rick Porter, Georgia Tech, and James H. Blore, Phillips Fibers Corp., Greenville, will assist in the presentations.

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Prof) was keynote speaker Oct. 19 at the annual meeting of the American Camping Association, Florida Section at Camp Wildwood near Orlando.

Jack Stevenson has been awarded a grant from the Southeastern Section of the American Camping Association to pursue research on case studies in administration in organized camps.

RECREATION AND PARK ADMINISTRATION (Continued)

L. W. Gahan (Assoc Prof) and Lorraine Roguet conducted five, one-day training workshops for park and recreation board and commission members. The workshops were held by the Pennsylvania Department of Community Affairs throughout the state Oct. 1-3 and 11-12. The co-sponsors for the workshops included the Pennsylvania Park and Recreation Board Association and the National Recreation and Park Association. Dr. Gahan serves on the Board of Directors of the Board-Commission Members branch of the National Recreation and Park Association.

SOCIOLOGY

William C. Capel (Assoc Prof) appeared as a panel member on "Southern Vintage Sociology" at the April 1 meeting of the Southern Sociological Society in Atlanta. His remarks, among others, appeared in The Southern Sociologist, Vol. 5, pp. 4-21 (Spring-Summer, 1974).

TEXTILE DEPARTMENT

"Thirty-Day Biodegradability of Textile Chemicals and Dyes," presented by Eric H. Snider (Grad Stu, Chem Engr) and John J. Porter (Assoc Prof) at the AATCC National Conference in New Orleans, La., Oct. 11.

C. W. Roberts (Assoc Prof) attended the Southeastern Regional Meeting, American Chemical Society, Oct. 23-25. A paper entitled, "Photophysical Processes in Poly (Hexamethylene Adipamide) Acid-Dye Complexes: Energetics of Nylon - 6,6 Phototendering, Part I," by H. S. Koenig (Clemson Ph.D., Union Carbide) and C. W. Roberts was presented at this meeting.

E. S. Olson (Assoc Prof) was the chairperson for one session at the AATCC National Technical Conference, Oct. 8-12. The session was "Special Topics I: Advances in Textile Chemistry."

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 8

CLEMSON UNIVERSITY LIBRARY

December 1, 1974

SOUTH CAROLINA ROOM

DEC 1 1974



Signing the contract for the 1976 International Housing Symposium are, standing from left, Adger Carroll, Karl Johnson, Herb Busching and Jim Dalton; seated are Oktay Ural, founding president of the International Association for Housing Science, and President R.C. Edwards.

Clemson to Host International Housing Symposium

Clemson University has been selected to host one of the world's largest conferences on housing problems, the International Symposium on Lower-Cost Housing to be held in 1976 in Atlanta, Ga.

It will be the first time the biennial symposium has been held in the Eastern United States. Some 400-500 participants are expected. The 1974 symposium was conducted in Montreal, Canada.

The meeting is conducted by the International Association for Housing Science (IAHS), a nonprofit organization composed

of representatives from all fields of housing research and the housing industry. Its members come from 41 nations on six continents.

The purpose of the week-long event is to bring about the improvement of housing conditions of the world by doing two things; transferring housing technology among both developed and developing nations, and encouraging all countries to adopt more scientific methods in all phases of planning, constructing and financing of housing.

Clemson won the distinction of hosting the international conference in competition with eight other major institutions in the

United States, Egypt and India.

The University has a long history of interest in housing problems, resulting in establishment of the Clemson University Housing Institute in 1973 to coordinate the University's teaching, research and community service activities in housing-related areas. The institute will coordinate the Atlanta symposium.

"The Tiger" Awarded All-American Rating by Associated Collegiate Press

The Tiger, Clemson's campus newspaper, has been awarded an All-American rating by the Associated Collegiate Press for its 1973-74 publications, signifying excellence in student publications.

Competing against hundreds of universities throughout the United States, The Tiger received four out of five marks of distinction in its category. Marks of distinction were cited for writing and editing, editorial leadership, physical appearance and photography.

One judge noted that "Writing is a very strong plus with The Tiger's very talented staff. You tell the story clearly and objectively."

The Tiger's editorials were cited as "relevant and researched, showing maturity and good judgment."

One of many nationwide and statewide awards received by The Tiger, the All-American rating results from the efforts of the 1973-74 staff headed by editor-in-chief Nancy E. Jacobs. The Tiger is counseled by Dr. L. L. Henry, associate professor of English and a former co-editor of the publication.

"A Memo to My Supervisor"

—written by Furman Arthur, public relations director at New College, and reprinted from "Techniques," a publication of the American College Public Relations Association

When you hired me, you observed that

making the transition from newspaper editing to college public relations work would be interesting but you didn't warn me that it would also be unintelligible.

I refer to what I call "campuspeak" — the language academicians and administrators use when they talk and write to each other. Journalists, except for beginning sport-writers, somehow manage to write millions of words describing the most difficult concepts without resorting to stilted language. I'm told that there are roughly 600,000 words in the English language and that the educated adult uses 2,000 every day. Why, then, do the highly educated men and women at colleges and universities consistently depend on, use and misuse a few of these words?

If I could erase only two words from "campuspeak," "viable" would be first and "parameter" second. Following these in no particular order would be "interface," "rubic," "maximize," "optimize," "conceptualize," "dichotomy," "input," and "feedback," — for a start.

To a newcomer, the language of the meeting room and campus memorandum should be declared "inoperative." Then we should insist on simple English, at least for the simple ideas that seem to predominate at faculty meetings. A Moratorium on the use of certain overworked words may solve some of our "communications" problems. Sometimes our communications problems result from the fact that we can't speak simply enough to be understood.

Some of our leading magazines and writers may take part of the blame for this plague of overworked words. Time, over the years, has introduced into our everyday vocabularies words and phrases which, I suspect, were unearthed by recent literature graduates, struggling to make their way up the ranks. Cursed by the writer who made academicians aware of "exacerbate" and "deja vu." You and I both know all too well at least one faculty member who cannot write a memo without using one or the other. A trustee recently suggested that we hold a meeting without using the word "viable." We almost made it but someone slipped.

I find less "campuspeak" at trustee meetings than at faculty meetings. Perhaps they are trustees because they have learned to think and speak clearly. I am reminded of a remark made by a trustee about an action that seemed to him totally unnecessary. A faculty member might have said, "In the parameters we conceptualize, and considering all the viable alternatives, that proposal would see fatuous and solecistic." What the trustee said was, "That would be like rearranging deck chairs on the "Titanic."

1974 Faculty Research Grants Supported Four Projects Abroad

The U.S. image in German literature, cultural changes reflected in Spanish drama, and black culture in the Antilles are among the topics of research done abroad by Clemson University professors during the summer of 1974.

Faculty Research Committee grants defrayed expenses on these three projects, a study of medieval pollution control efforts in England, and research on Colombia and the Panama problem during the early 1900's. Seventeen additional research projects conducted in South Carolina and four other states also received portions of the \$16,365 distributed by the committee. The grants are supported by the Clemson Alumni Association and the Kress Endowment.

With the hypothesis that teaching materials affect student attitudes, Patricia W. Wannamaker, associate professor of German, studies books used in English classes in German schools to draw up a composite picture of the American culture that confronts the student in these classes.

Students were tested to determine how much their attitudes toward America reflect this image. Wannamaker is still compiling information to complete the study.

Through his research on recent Spanish drama, Leon E. Seamon, assistant professor of Spanish, found changes in the Spanish attitudes toward women and religion. Plays tell of young girls leaving the country for school and of women marrying outside their religion and race. Mothers,

formerly portrayed as severely religious and always dressed in black, more recently have been depicted as having lovers while their husbands are living, or remarrying after their husbands die. Playwrights also have written of seductions in churches and other sacrilegious scenes.

The islands of Guadeloupe and Martinique in the Antilles were colonized by the French. "A rich, scholarly and informative literature," wrote Russell Willingham, instructor of French, "is unique in that its language may be French, but its heritage, its cultural orientations is uniquely black.

According to Willingham, authors Etienne Lero and Aime Cesaire of Martinique began the movement of Negritude, a denunciation of the subjugation of blacks by whites and an effort to reveal black dignity, pride and intelligence.

Jerome V. Reel Jr., associate professor of history, examined English records of special commissions created between 1320 and 1420 to regulate obstructions in rivers, the building of dikes and sewers, and the disposal of waste matter into rivers and streams.

Reel is trying to determine why the membership of the commissions shifted from common people to dignitaries and whether this change contributed to the collapse of the system.

Joseph L. Arbena, associate professor of history, devoted his summer research to finding an explanation for Colombia's generally cooperative attitude at the Inter-American Conference of 1906, despite the still unresolved Panama dispute with the United States.

Arbena found that Colombian President Rafael Reyes agreed to cooperate with the United States on the Panama question in return for an American pledge to deny aid to Colombian separatists, to persuade Panama to do the same, and to speed up negotiations for a new treaty.

The Faculty Research Committee will meet early in December to award the 1974-75 faculty grants.

South Carolina State Employees' Association Seeks New Members

Faculty and staff members will be given an opportunity to join the South Carolina State Employees' Association (SCSEA) in a membership effort beginning in late November. Information and applications will be distributed by membership chairpersons in each department of the University.

SCSEA is an organization of state employees. It gives continuous attention to employee's salaries, benefits, problems, and needs. Each year the association's leaders appear before and present a legislative program for state employees to the State Budget and Control Board and to key Senate and House Committees.

SCSEA leaders appearing before these groups are often asked how many members the association claims. SCSEA currently has about 13,000 members from all state agencies. There are 391 members from Clemson University, or about 13 percent of the university's employees. The goal of the current effort is to increase the membership.

Please direct questions about SCSEA to your department's membership chairperson, or to any of the SCSEA directors at Clemson: L.C. Hamilton, ext. 2961; Mary Mungall, ext. 3181, or Herbert Campbell, Physical Plant.

Calendar of Campus Events

- 1-13 Architecture Exhibition: A review of student projects done during the fall semester, featuring thesis projects. Rudolph Lee Gallery, College of Architecture. Gallery open 9 - 4:30 p.m., weekdays.
- 2 Classes Resume.
- 2 Agronomy Lecture and Seminar: Diagnostic Techniques for Plant Nutrient Needs, Dr. J. B. Jones, Extension Agronomist, University of Georgia. 9:05 and 11:15 a.m., seminar at 4:00 p.m. A-203 P&AS Building. Open to the public.
- 3 University Union presents the Amazing Randi, an internationally known magician, illusionist and escape artist. 8:00 p.m., Tillman Hall Auditorium, admission 50¢ with University I.D.
- 4 Basketball: Furman, 8:00 p.m., Littlejohn Coliseum.
- 4-5 South Carolina Dairyman's Conference: Profitable Dairying in the '70's. Sponsored by the Department of Dairy Science. 1:00 p.m., Holiday Inn, open to the public, admission free, expected enrollment approximately 200.
- 5 Woman's Club: "Christmas Around the World." 3:15 p.m., Clemson House.
- 5 Fort Hill Clemson Club Tip-Off Luncheon, 12:00 Noon, Clemson House.
- 5 University Chorus Christmas Concert, 8:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 5 Chemistry Seminar: Photoelectron Spectroscopy in Organic Chemistry, S. D. Worley, Auburn University, 8:00 p.m., 131 Brackett Hall.

- 5-6 10th Annual Air and Water Pollution Control Seminar: Speakers will describe new developments in pollution control from technical, economic and regulatory viewpoints. Sponsored by the College of Engineering. Registration 9:30 a.m., Clemson House, open to the public, registration \$50, expected enrollment 100.
- 7 Basketball: Appalachian State, 8:00 p.m., Littlejohn Coliseum.
- 8 University Union Sunday Free Flick: Movie Orgy, a return engagement of the hilarious compilation of the best from old movies and TV shows. 7:00 p.m., Tillman Hall Auditorium, admission free with University I.D. (Note: this show will last 4½ hours),
- 9 Examinations Begin.
- 14 Graduate Record Examination, 8:30 a.m., M-101 Martin Hall.

WEPR Highlights

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI 89.3-FM, Charleston.

- 3,10 MUSIC FROM THE MOUNTAINS (3) Love Songs (10) Appalachian Carols.
- 4 ENVIRONMENT '74:(4), 7:45 p.m. Christmas Tree Care with Sam Marbut, Assistant Professor in Forestry, Clemson University.
- 4,11 PHYSICAL SCIENCE IN THE REAL WORLD: (4), 11:45 a.m. Consumer New Special: Flame Retardant Nightwear--the Government's Role with Ursula Holahan, Associate Professor of Home Economics, Clemson University, and Carol Young of the Consumer Protection Safety Commission. (11), 11:45 a.m. Fire and Flammability, part 2.
- 4,11, POLITICAL SCIENCE: (4&11), 11:00 a.m. (6&13), 6:30 p.m. Special programs from
6,13 the Southern Convention of Political Science Professors, New Orleans, La.
- 4,7, WORD-GO-ROUND: (4), 11:30 a.m. (7), 6:45 p.m. Words from the Wall Street Journal
11,14 (11), 11:30 a.m. (14), 6:45 p.m. Useful Monosyllabic Words.
- 5,12 POETRY TODAY: (5), 12:00 Noon & 7:45 p.m. Hugh Selwyn Marburley. (12), 12:00 Noon & 7:45 p.m. Christmas Theme Poems, part 1.
- 6,13 FOOD FOR THOUGHT: (6), 12:00 Noon & 7:45 p.m. Foods for Christmas Giving.
(13), 12:00 Noon & 7:45 p.m. Food Shopping for the Holidays.
- 6,7, MAJORS AND MINORS: (6), 2:00 p.m. Getting Organized. Robert Moffat demonstrates
13,14 the 1897 Tricor organ. (13), 3:00 p.m. Met at the Met. (7), 10:30 p.m. Astrologer's Delight. (14), 10:30 p.m. Brass Tacks.
- 14 PERFORMANCE: (14), 9:00 p.m. Clemson University Chorus sings sacred selections, popular and folk songs, Christmas carols, traditional and secular partsongs.
- Daily Carolina Weathervane, from Clemson Extension Service, S.C. Experiment Station and National Weather Service, featuring agricultural news, weather, recommendations and county reports, 12:15 p.m.

BIOCHEMISTRY

Gary L. Powell (Assoc Prof) presented a paper on Oct. 23 at the Southeastern Regional ACS meeting, Norfolk, Va. The paper was entitled, "Acyl Carrier Protein Pantothenate and Control of Fatty Acid Biosynthesis in Lactobacillus Plantarum." The authors of the paper Gary L. Powell and Joseph Sabaitis.

The department of Biochemistry hosted the ninth annual Regional Lipid Conference, Oct. 27-29. Sixty researchers from 12 institutions in eight states attended and the keynote address was given by Dr. J. W. Porter from the V.A. Hospital and University of Wisconsin, Madison. Papers from Clemson included:

J. W. Brunson (Grad Stu) and J. M. Shively (Prof and Hd), "Extra Membrane formation in Escherichia coli."

Don Adams (Grad Stu) and D. M. Henricks (Assoc Prof) "[¹⁴C] Progesterone Metabolism by Porcine Uterine Endometrial Tissue."

Kuo-Hom Lee Hsu (Grad Stu) and Gary L. Powell, "Does Citrate Synthase have Specific Binding Sites for Oleoyl-CoA?"

Gary L. Powell and Richard Ma (Grad Stu) and John Jacobus (Assoc Prof, Chem), "The Assymetry of Diphosphatidylglycerol."

J. W. Brunson, Kathleen Stralka (senior res stu in Bioch 491), and J. M. Shively presented a paper entitled, "Extra membrane biosynthesis in Escherichia coli O111a₁: nutritional parameters" at the South Carolina Branch - American Society of Microbiology meeting at Winthrop College, Rock Hill on Nov. 8.

CHEMISTRY

G. B. Park (Asst Prof) presented a seminar to the department of Chemistry of Western Carolina University Nov. 1 entitled, "High Pressure Liquid Chromatography," under sponsorship of the student affiliate chapter of the American Chemical Society.

J. W. Huffman (Prof) presented a seminar to the student affiliate chapter of A.C.S. at Auburn University, Nov. 13 entitled "How Plants Synthesize Organic Compounds."

D. C. Beer (Asst Prof) presented a seminar at Appalachian State University, Nov. 15 entitled, "Recent Advances in Metal-Carborane Chemistry."

M. B. Bishop (Assoc Prof) presented a seminar at Winthrop College on Nov. 13 and another at Erskine College, Nov. 18 entitled: "Enzymes Used as Diagnostic Tools in the Clinical Laboratory."

CIVIL ENGINEERING

Parviz F. Rad (Asst Prof) has been elected to the membership of ASTM sub-committee C-15 dealing with manufactured masonry units. He has also been appointed to the awards committee of Carolinas ASTM District.

ELEMENTARY AND SECONDARY EDUCATION

William W. Pennscott (Prof) and Teryle W. Carpenter (Asst Prof) presented a paper entitled, "The Effects of A College Reading Program Upon the Reading Gains, Self-Esteem Level and Perception of the University Environment of High Risk Students," at the 18th annual meeting of the College Reading Association held on Oct. 31- Nov. 2 at Bethesda, Md.

Teryle W. Carpenter (Asst Prof) and Yvonne Jones (Instr) presented a paper entitled, "A Multi-Modal Approach to Language Skills" at the College Reading Association 18th annual meeting in Bethesda, Md., Oct. 31-Nov. 2.

Frederick C. Raetsch (Asst Prof) presented a paper titled, "Vocabulary Development in Vocational and Technical Classes" at the College Reading Association in Bethesda, Md. on Nov. 1. Dr. Raetsch has been appointed to the Publications Committee of the College Reading Association.

R. Kenneth Peden (Asst Prof) conducted two physical science workshops for Greenville County Middle School teachers, Oct. 17 and Oct. 24.

ENGLISH

Robert W. Hill (Asst Prof) read a paper, "Sure I Like Poetry . . . (sigh) . . . Rod McKuen!" at the South Atlantic Modern Language Association meeting in Washington, Nov. 2. At the meeting he was elected secretary of the Freshman English Section of SAMLA for 1975.

Robert W. Hill read his own poetry and a paper, "Attitudes Toward Literature," before the Anderson Writers' Guild, Anderson College, Nov. 7.

Ronald Lunsford (Instr) read a paper, "Romantic Imagery and the Modern Psyche," at the Oct. meeting in Birmingham of the Popular Culture Association in the South.

GEOLOGY

R. D. Hatcher, Jr. (Assoc Prof) led the first day field trip of the Georgia Geological Society meeting, Oct. 25-27 in Clayton, Ga. A paper and guidebook, "An Introduction to the Blue Ridge Tectonic History of Northeast Georgia," authored by Dr. Hatcher was published for this event by the Georgia Geological Survey.

HISTORY

William F. Steirer, Jr. (Asst Prof) served as a commentator at the 59th annual Convention of the Association for the study of Afro-American Life and History, Oct. 25-26 in Philadelphia, Pa.

LANGUAGES

S. Carl King (Asst Prof) presented a paper, "Female Autonomy and Parental Authority in the Theatre of Ruiz de Alarcon" at the South Central Modern Language Association in Houston, Texas on Nov. 1.

MATHEMATICAL SCIENCES

J. V. Brawley (Prof) at the request of the American Mathematical Society, chaired a special session in Combinatorial Theory at the fall meeting of the Society held in Nashville, Tenn. There were ten invited papers presented in the session.

Papers presented by Clemson faculty members at the fall meeting of the American Mathematical Society:

J. V. Brawley - "The Number of Polynomial Functions which Permute the Matrices over a Finite Field."

John D. Fulton (Assoc Prof) - "Gauss Sums and Solutions to Simultaneous Equations over GF $[2^Y]$."

D. R. LaTorre (Assoc Prof) - "Semilattices of bisimple Orthodix Semigroups."

James A. Reneke (Assoc Prof) - "Stability and Control of Hereditary Systems."

J. V. Brawley presented two lectures "Gamblers Ruin" on Oct. 23 and "Mathematical Cryptography" on Oct. 24 to a consortium of faculty and students from the College of Charleston, The Citadel, Baptist College at Charleston and the Medical College of South Carolina. The talks were sponsored by the Mathematical Association of America which maintains a nationwide panel of Visiting Lecturers.

MATHEMATICAL SCIENCES (Continued)

John C. Peck (Assoc Prof and Dir of Inf Systems Dev) presented an invited lecture entitled, "Design of Online Information Systems" at the University of Southwestern Louisiana on Oct. 25.

PHYSICS AND ASTRONOMY

J. R. Ray (Assoc Prof) gave a colloquium at Virginia Polytechnic Institute and State University in Blacksburg, Va. on Oct. 31. His subject was "Spacetime Symmetries and Exact Solutions in General Relativity."

Conrad Sturch (Visit Asst Prof) participated in an International Conference on Multicolor Photometry at Albany, N.Y. in Oct.

Conrad Sturch has been granted telescope time at Kitt Peak National Observatory to obtain H- and K-line Photometry of G and K stars.

POULTRY SCIENCE

"Vegetable Diet with or without Fishmeal and Hatchability of Chicken Eggs," by J. B. Cooper (Assoc Prof) and B. L. Hughes (Asst Prof) was published in Poultry Science 53: 1849-1852. 1974

"Some Physiological Effects of Eimeria acervulina, E. brunetti, and E. mivati Infections in Young Chickens," by J. F. Stephens (former Assoc Prof), W. J. Borst (former Grad Res Asst) and B. D. Barnett (Prof and Hd) was published in Poultry Science 53: 1735-1742. 1974.

SOCIOLOGY

William C. Capel (Assoc Prof) has published with Bernard Caffrey (Assoc Prof and Hd, Psychology) an article, "Faking Good: As a Problem in Comparative Studies of Heroin Addicts," in Psychological Reports, 35 (Oct. 1974), 859-864.

ZOOLOGY

Richard F. Walker (Asst Prof) participated in a Symposium on Cotton Dust which was sponsored by the American Conference of Governmental Industrial Hygienists. He spoke on the subject of pulmonary free cell changes in response to cotton dust exposure at the meeting which was held in Atlanta on Nov. 12-13.

ZOOLOGY (Continued)

Steve Frawley (Grad Stu, Animal Physiology) and Richard F. Walker recently published an article entitled, "Influence of Light on Thyroid Function in Bullfrog Tadpoles," in General and Comparative Endocrinology. 23:83-86.

UNIVERSITY UNION

Art Hartzog, Union Program Director, was recently elected State Coordinator for the National Entertainment Conference. The election took place at the Southeast Unit Conference of NEC in Savannah, Georgia. The National Entertainment Conference is an educational--service organization of colleges and universities with associate members from the entertainment industry. As Unit Coordinator for South Carolina, Hartzog will be responsible for coordinating information on activities programming among member institutions in the state, assisting with problems, and acting as liaison with the National Office in Columbia, S.C. There are currently 17 member schools in the state, and over 600 nationally.

Mr. Hartzog was involved in the original formation of NEC while a graduate student at the University of South Carolina.

CONTINUING ENGINEERING EDUCATION

A short course on "Building Inspection" will be presented Dec. 3-5 at Columbia. This course is co-sponsored by the department of Civil Engineering of Clemson University and the Personnel Division of the State of South Carolina. The course is being offered as a repeat of one offered on the Clemson campus in July and one offered in Charleston on Nov. 6-8. The course co-sponsored by the Chemical Engineering department, the Environmental Systems Engineering department, and the South Carolina department of Health and Environmental Control. The course chairmen are F.C. Alley (Prof, ChemE), and A.R. Abernathy (Prof, ESE).

A short course on "Microcomputer Systems, Their Operation and Application" will be presented on Dec. 12-13 in Rhodes Engineering Research Center. The course is sponsored by the department of Electrical and Computer Engineering. Software and hardware aspects of Microcomputer Systems will be treated in the two day intensive session, including hands-on experience with the Intel Intellec 8 System. The course co-chairmen are John N. Gowdy (Prof, E&CE) and John M. Murray (Instr, E&CE).

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOVEMBER 4, 1974

Present: Robert C. Edwards, presiding; Victor Hurst, Melford A. Wilson, Stanley G. Nicholas, Walter T. Cox, Luther P. Anderson, H. Morris Cox, Charles R. Dillon, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, James E. Dalton, W. H. Davis McGregor, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis, Beulah R. Cheney and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of October 7, 1974 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommended additions, deletions and changes in the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) Revisions in the Entomology and Economic Zoology concentrations in the Economic Biology curricula. The Plant Pathology concentration remains unchanged. (See p. 119 of the 1974-75 Catalog.)

See Minutes of Undergraduate Council of October 4, 1974, published in the November 15 issue of the Newsletter, for the revisions in this curricula.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOV. 4, 1974 (Continued)

II. COLLEGE OF INDUSTRIAL MANAGEMENT & TEXTILE SCIENCE

(A) Graduate Course Change

Text 840	Spectrophotometry (Change from 3 theory hours to 2 theory hours and 3 lab hours.)	3 cr. (2 and 3)
----------	---	-----------------

III. COLLEGE OF LIBERAL ARTS

(A) New Undergraduate Courses

PolSc 424	Administrative Law	3 cr. (3 and 0)
PolSc 427	Government Personnel Administra- tion	3 cr. (3 and 0)

IV. COLLEGE OF NURSING

(A) New Undergraduate Courses

Nurs 426	Independent Study in Nursing, 4 cr (2 and 6). Replaces 4 semester hours of Nurs 425, Independent Study.
Nurs 431	Care of the Hospitalized Child with Long Term Illness, 4 cr (2 and 6) Replaces 4 hours of Nurs 425, Independent Study.
Nurs 432	Nursing Care of the Person in Crisis, 4 cr (2 and 6). Replaces 4 hours of Nursing 425, Independent Study.
Nurs 433	Transactional Analysis and Nursing, 4 cr (2 and 6). Replaces 4 hours of Nursing 425, Independent Study.

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOV. 4, 1974 (Continued)(A) New Undergraduate Courses (continued)

- Nurs 434 Teaching Role of Nurse Practitioner, 4 cr (2 and 6).
Replaces 4 hours of Nursing 425, Independent Study.
- Nurs 435 Care of Individuals with Complex and Critical Illness Problems,
4 cr (2 and 6). Replaces 4 semester hours of Nursing 425,
Independent Study.
- Nurs 436 Nursing Care of the Acutely Injured Person, 4 cr.(2 and 6).
Replaces 4 semester hours of Nursing 425, Independent Study.
- Nurs 437 Introduction to School Health Nursing, 4 cr (2 and 6).
Replaces 4 semester hours of Nursing 425, Independent Study.

THE TOTAL SEMESTER HOURS CREDIT REQUIRED FOR THE BACCALAUREATE DEGREE IN
NURSING WILL BE 130.

(B) Changes and Deletions

1. Delete elective first semester, Junior year; add Sociology 202
first semester, Junior year; delete Sociology 202 summer session.
This action will provide for completing a Bachelor of Science Degree
in Nursing in four academic years and eliminates a required summer session.
2. Change prerequisite from Nursing 208 to nursing courses numbered 300 and
above to read as follows:
The physical, biological and social sciences and mathematics courses
scheduled for the Freshman and Sophomore years are prerequisite to
nursing courses numbered 300 and above. This action is necessary due
to the deletion from the program of Nursing 208.
3. Delete Nursing 425, Independent Study in Nursing, 7 credits (3 and 12).
Add new courses; each senior student will be required to enroll in 8
hours of Nursing electives.

(C) New Graduate Courses:

- Nurs 801 Family Health Nursing, 3 cr (1 and 6)
- Nurs 807 Seminar, 1 to 3 credits
- Nurs 812 The Dynamics of Community Health, 3 cr (3 and 0)
- Nurs 815 The Promotion and Maintenance of Health, 3 cr (1 and 6)

MINUTES OF THE EDUCATIONAL COUNCIL MEETING, NOV. 4, 1974 (Continued)

(C) New Graduate Courses (continued)

- Nurs 827 Foundations of Nursing Education, 3 cr (3 and 0)
Nurs 828 The College Teacher of Nursing, 3 cr (3 and 0)
Nurs 830 The Clinical Specialty in Nursing, 6 cr (3 and 9)
Nurs 881 Special Problems - Credit to be arranged
Nurs 891 Research - Credit to be arranged

V. COLLEGE OF PHYSICAL, MATHEMATICAL, AND BIOLOGICAL SCIENCES

(A) New Undergraduate Course:

- Astr 208 Selected Topics in Modern Astronomy, 3 cr (3 and 0).

(B) Undergraduate Change:

- Ch 443 Research Problems, 3 cr (0 and 9). Change prerequisite to:
Senior standing in Chemistry or permission of the Instructor.

(C) New Graduate Courses:

- Bot 655 Vascular Plant Morphology, 3 cr (2 and 3)
Ch 910 Special Topics in Analytical Chemistry, 1-4 cr (1-4 and 0)
Micro 804 Current Topics in Microbiology, 1 cr (1 and 0)

Action: Approved.

E. N. Tyndall

E. N. Tyndall
Secretary

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPTEMBER 10, 1974Call to Order and Approval of the Minutes

President Dillon called the meeting to order at 4:17 p.m. and asked the Secretary to read the August 20 minutes. A motion was made to dispense with the reading of the minutes; there was a second and the motion carried unanimously.

Committee Reports

- a. Policy - No report.
- b. Research - Chairman O'Dell announced that his Committee has been subdivided into smaller more workable groups, and that they are working on the South Carolina Retirement System, TSA, and the Environmental Control Center of the State.
- c. Admissions and Scholarship - Chairman Fitch moved that the Resolution on Student Senate Bill B-74-48 (FS 73-6-4) concerning the "Honor System" be removed from the table. The motion received a second and it was approved unanimously. Chairman Fitch moved that the following changes be approved under III. Penalties. B. A student guilty of the second offense of cheating will receive a grade of "F" for the course and will be permanently dismissed from the University; IV. Administrative Action. E. Written Records of Proven Honor Code Violations will be retained by the Vice President for Student Affairs. The motion received a second. The question was called for and approved and the motion to approve the changes was approved unanimously.
- d. Welfare - No report.

President's Report

- a. President Dillon announced that Senator LeBourgeois resigned from the Senate as of Sept. 2 which created a vacancy on the Student Relations Committee. The Advisory Committee was contacted and approved the nomination of Senator Bookmyer to fill this position.
- b. President Dillon announced that he was appointing an Ad Hoc Committee on Retirement and that he is requesting that the Senate approve the addition of one more member to this Committee. The members will be: A. L. Recoulley, English; K. T. Wallenius, Mathematics; W. Witcher, Plant Pathology; Peter R. Lee, Architecture; J. C. Hite, Agricultural Economics; R. Thompson, Nursing; and Susan Brown, Industrial Management. Professor Brown will chair the Committee.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPT. 10, 1974 (Continued)

- c. President Dillon called for reports from the various Ad Hoc Committees. Traffic and Parking - Jacobus - No report.
Faculty Work Loads - Holmes - No report.
- d. President Dillon discussed the various committees of faculty involvement that are to be included in the Faculty Manual: Vending Machine Committee; Disciplinary Committee; Committee on Laboratory Animal Welfare; Union Governing Board. The Ethics and Religion Committee was abolished by executive action.
- e. President Dillon reported on the Sept. 2 Educational Council meeting: the class attendance policy for undergraduate students was approved; the announcement was made that the groundbreaking ceremonies for the \$5.4 million Jordan Hall will take place on Oct. 16.
- f. President Dillon announced that the Advisory Committee nominated the following individuals to the Disciplinary Committee: Senator M. A. Brandt, Nursing; Professor B. R. Ingram, Zoology.
- g. President Dillon announced that Senator B. L. Edge would be the Senate representative on the Union Governing Board and that one other faculty member is needed for this Board. Dr. Dillon explained that this Board consists of 2 faculty members, 10 students, 1 alumnus, the Union Director (Mr. Trent), and the Program Director (Mr. Hartzog).
- h. President Dillon reported that the Administration has requested that the faculty cooperate in seeing that faculty with student offspring park and adhere to student regulations when a student drives a faculty member's car. In cases where a student drives a faculty member's car, the car should have 2 decals: one for faculty and one for student. The vehicle should be parked in the student parking lot if the student is driving the vehicle that day. The Administration realizes that this arrangement is unenforceable except through the cooperation of the faculty.
- i. The Senate has been asked for an opinion as to whether University Committees should elect a chairman for the succeeding year prior to appointment of new members of the Committee. (Referred to Welfare Committee).
- j. President Dillon announced that the President of the Faculty Senate will have a permanent phone number to be listed in the University phone book: 656-2456. This line will be passed to succeeding presidents.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPT. 10, 1974 (Continued)

- k. President Dillon has asked Professor Claire Caskey to act as editor in the revision of the Faculty Manual.
- l. President Dillon announced that he has sent to the faculty a memorandum requesting comments and suggestions on the tenure policy as outlined in the Faculty Manual. He requested that these comments be forwarded to Senator A. H. Holt, English Department.
- m. President Dillon suggested that the Senate invite Dean Schwartz and others to address the Senate at some future meeting and explain the expanding computer facility and increased availability of the computer to students.
- n. President Dillon received a letter from Mrs. H. J. Grove, President, Clemson University Women's Club enclosing a letter from President of Women's Auxiliary of U.S.C. The letter requested that children of faculty be exempted from academic fees. Mrs. Grove also suggested that the exemption be extended to the remission of academic fees for one course per semester for spouses of Clemson University faculty members. A discussion ensued during which time the question was raised as to what the policies are at other State or Land Grant Institutions. The matter is under consideration by the Welfare Committee.
- o. President Dillon reported that he had asked Dean Willis to write a section for the Faculty Manual clarifying summer earning opportunities for 9-month faculty members.
- p. President Dillon asked for Senate permission to move the new faculty orientation up to Thursday. New faculty orientation is a function of the Senate, and complaints have been registered from new faculty members that this activity takes all day and then some colleges also have Saturday orientation. The Senate approved.
- q. Dean Green advised President Dillon that he has asked that the computerized evaluation of faculty be dropped from consideration by the Committee on the Improvement of Undergraduate Teaching.
- r. President Dillon will go on a tour with Dean Hurst to the Agricultural Experiment Stations throughout South Carolina on Oct. 30 and Nov. 1.
- s. President Dillon reminded the Senate that each Senator is to act as an ombudsman for the faculty in his or her college.

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPT. 10, 1974 (Continued)

Old Business

- a. President Dillon, in answer to a question concerning the annual leave policy for 12-month faculty, reported that the issue is very viable and that a ruling should be forthcoming soon.
- b. There was a discussion on the release of average salary information. Senator Adkins suggested that all salaries be converted and reported either on a 12-month basis instead of on a 9-month basis or on a bi-weekly pay period basis. President Dillon informed the Senate that Dean Hurst asked that there be no change in the salary information format.

New Business

- a. President Dillon announced the assignments on the Faculty Manual revision have been made -
 1. Page 14 - to Dean Hurst for updating
 2. Pages 15-16, Academic Administration - Admission and Scholarship Committee.
 3. Pages 17-24, University Councils and Committees - Policy Committee.
 4. Policy statements -
 - Pages 25-26, Academic Freedom and Preamble - Welfare Committee
 - Pages 26-27, Regulations Paragraph 1 and Paragraph 2 - Policy Committee; Paragraph 3-9 - Welfare Committee
 - Pages 32-1/2 33, Faculty Ethics - Welfare Committee
 - Pages 1/2 33-1/2 40, Hours of Work, Holidays and Leave for Academic Personnel - Research Committee
 - Pages 1/2 40-42, Faculty Appointments and Promotions - Admission and Scholarship Committee
 - Pages 43-44, Retirement and Faculty Participation in the Selection of Academic Administrators - Research Committee
 - Pages 45-46, Political Activities of Faculty, Outside work by Faculty Members, Title of Emeritus - Welfare Committee
 - Pages 47-49, Policy and Procedures for Selecting Honorary Degree Recipient, Patent Policy, Research Foundation - Policy Committee
 - Pages 50-53, Grievance Procedures - Admissions and Scholarship Committee
 - Pages 54-62, Informational Items - Research Committee
 - Pages 63-71, Appendix - Constitution and By Laws - Advisory and Policy Committee

MINUTES OF THE MEETING OF THE FACULTY SENATE, SEPT. 10, 1974 (Continued)

Most of the Manual will not require changing. If changes are needed, they should be typed and brought out on the Senate floor. President Dillon will send to committee chairmen the changes that have already been recommended. Upon leaving the Senate, all changes will be reviewed by a committee formed by Dean Hurst (this committee will include a faculty member). President Dillon set Nov. 1974 as the target date for submitting the reorganized Faculty Manual to Dean Hurst.

President Dillon asked if there were any other items of new business. Senator Slann reported that one of his constituents voiced objection to the presence of an armed guard at the book store. A discussion ensued during which it was brought out that the armed guard presumably was present because of the large sum of money that was handled rather than a show of force to keep order. Senator Bookmyer reported that there was still some dissatisfaction with the operation of the book store. Senator Baron asked if there was a university policy on the release of the book list to a privately owned book store. The Senate is interested in what really happens to profits from the book store. It was stated that profits from the bookstore are relegated to the General Fund for University-wide distribution.

There being no further business, the meeting adjourned at 5:49 p.m.

Respectfully submitted,

T. R. Adkins, Jr., Secretary

Members absent: D. O. Ezell, K. E. Carpenter, J. A. Chisman, B. L. Edge, and C. W. Roberts.

GRADUATE COUNCIL MINUTES, OCTOBER 11, 1974

The meeting of the Graduate Council which was held at 3 P.M. Friday, October 11, 1974 in the Conference Room of E-103 Martin Hall, was called to order by Dean Schwartz. Those present were: Dr. Brown, Dr. Hendricks, Dr. Jerry Lambert (for Dr. Dysart), Dr. Smith, Dr. McLellan (for Dr. Gahan), Dr. Mandel, Dr. Gauthreaux, Dr. Rodgers, Professor Falk, Dr. Tanner, Mr. Lyle, and Mr. Lauten.

The minutes of the September 13, 1974 meeting were approved with noted corrections.

The following new courses were approved:

COLLEGE OF NURSING

Nurs	801 - Family Health Nursing
Nurs	807 - Seminar
Nurs	812 - The Dynamics of Community Health
Nurs	815 - The Promotion and Maintenance of Health
Nurs	827 - Foundations of Nursing Education
Nurs	828 - The College Teacher of Nursing
Nurs	830 - The Clinical Specialty in Nursing
Nurs	881 - Special Problems
Nurs	891 - Research

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

Bot	655 - Vascular Plant Morphology
Ch	910 - Special Topics in Analytical Chemistry
Micro	804 - Current Topics in Microbiology

Dean Schwartz administratively approved the following course:

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Text	840 - Spectrophotometry (change in hour distribution)
------	---

The subcommittee on wording of Residency Requirements for Masters and PhD Degrees was unable to meet, therefore, no report was made.

Dr. Mandel, chairman of the subcommittee on Graduate Admission Requirements, presented a progress report.

Dean Schwartz reported that three Graduate Council members would be appointed along with representatives from other University committees to study and identify areas of apparent duplication on campus. This is to be done at the request of University administration.

The Council discussed some areas of concern and request was made to place these items of interest on the November agenda.

A motion was made, seconded, and passed to adjourn.

NORTH CAROLINA AGENCY PROVIDES COMPUTERIZED LITERATURE SEARCHES

Clemson University researchers in many fields can now save hours of manual literature searching by utilizing the computerized search capabilities of the N.C. Science and Technology Research Center (NC/STRC). The Center is funded jointly by the State of North Carolina and the National Aeronautics and Space Administration (NASA) as one of six NASA Regional Dissemination Centers in the country.

Subject coverage of the NC/STRC data bases includes a wide variety of fields, from education to aeronautics and textiles to biology. Both retrospective and current awareness searches are available on the following collections:

- NASA
- Government Reports Announcements (GRA)
- Engineering Index
- Chemical Abstracts Condensates
- IFI/Pleum Comprehensive Data Base of Patents
- Educational Resources Information Center (ERIC)
- World Textile Abstracts
- Institute of Textile Technology (ITT)
- MIT Textile Information System
- Biological Abstracts
- Medline
- Food Science and Technology Abstracts
- Smithsonian Science Information Exchange
- TOXLINE
- CAIN, covering the Bibliography of Agriculture

Some of these files are processed in-house by a NC/STRC computer program; others are prepared by various organizations through special arrangements with NC/STRC. Manual searches on any resource will be performed on request.

Because of its nature as a government agency, NC/STRC charges its users only direct costs for services rendered. Thus, searches are priced separately by file, depending on the complexity of the computer program used and the amount of information contained in the file. Prices for retrospective searches range from \$45 to \$325; current awareness searches cost from \$100 to \$310 per year. The cost includes the time of a NC/STRC subject specialist to communicate with the user about the parameters of the request, prepare search strategy, and evaluate the results to insure the most pertinent information possible. All that is necessary to initiate a request is a call or letter explaining in as much detail as possible the question to be searched. Results, in the form of a bibliography of complete abstracts, are normally returned within two weeks.

NORTH CAROLINA AGENCY PROVIDES COMPUTERIZED LITERATURE SEARCHES (Continued)

As an extension of NC/STRC's computerized retrieval activities, the Library Search Service is operated in conjunction with 36 southeastern universities, including Clemson University. Students may order retrospective searches of any one of four NC/STRC collections (NASA, GRA, ITT, or ERIC) at a charge of only \$15. Librarians are trained to prepare search strategy so that students can order searches locally and have a hand in specifying their requests for computer processing. Students receive complete abstracts for all citations, but the searches are not evaluated by the NC/STRC staff for relevancy. Students should contact Miss Genevieve Reidy in the Science and Technology Division of the Cooper Library.

Requests for further information on the Center's operations or coverage on specific search topics should be sent to Becky Walker, Information Specialist, NC/STRC, P.O. Box 12235, Research Triangle Park, N.C. 27709, phone (919) 549-8291.

FULBRIGHT AWARDS FOR LECTURING AND RESEARCH

The Graduate School has received information that there are still openings for Fulbright lecturing and research awards for the academic year 1975-76. The fields in which openings remain are: American Studies; Arts and Architecture; Economics and Business Administration; Education; Engineering, Mathematics, and Physical Sciences; Geography and Geology; Library Science; Life Sciences; Linguistics and Teaching English as a Foreign Language; Mass Communications; Political Science and Public Administration; and Psychology and Sociology.

Faculty members who are interested may contact the appropriate department head, to whom a copy of the announcement has been sent, or the Graduate School. A faculty member who may not be interested in these particular awards but who would like to be informed about awards in the future may ask to be put on such a mailing list by writing to:

Council for International Exchange of Scholars
2101 Constitution Avenue
Washington, D.C. 20418

MINUTES OF THE UNIVERSITY LIBRARY COMMITTEE MEETING, OCTOBER 14, 1974

Present: Hewitt D. Adams (Chairman), Furman R. Gray, Ursula A. Holahan, Gordon E. Howard, Edward F. Olive, Kenneth J. Russo, Doris R. Helms, April Baker, Brice Stone, J. W. Gordon Gourlay (Secretary).

Minutes of the meeting of September 9 were approved.

A letter from Student Body President Mr. Reginald Brantley dated October 4 concerning making lockers in the library available to commuting students had been distributed to the Committee prior to the meeting. It was the consensus of the Committee that if lockers were provided it should be in some building other than the library.

Chairman Adams read a letter from Professor Alex Velez concerning noise created by janitors while cleaning the faculty lounge on Monday morning. The Committee suggested that perhaps the vacuuming could be scheduled at a different hour and request the Secretary to express the concern of the Committee to the Director of the Physical Plant.

There was a discussion of various library policies especially the xeroxing of articles from scientific journals. Mrs. Helms agreed to meet with members of the Science Technology and Agriculture Division to discuss the matter further.

Time of next meeting, Monday, November 11 at 3:30 p.m.

J. W. Gordan Gourlay, Secretary

MINUTES OF THE UNIVERSITY AUDIO-VISUAL COMMITTEE MEETING, OCT. 1, 1974

Present: M. W. Jutras, D. D. Moyle, B. P. Watkins, R. D. Riley, E. L. Wall, P. Owen, Jr., H. W. Durham, J. C. Hubbard, Jr., R. P. Ashworth, Samuel Wang.

Chairman Wang opened the meeting. Harry Durham reported that the Communication Center service pamphlet is not yet completed. The text has been prepared.

Mr. Durham also discussed the proposed Continuing Education Center. Both the Communications Center and Public Relations will be housed in the new facility. Not only will the Center allow for the increase of present services but will allow for the creation of new ones.

Mr. Durham also reported that he now has funds for the implementation of the Telelectures. This service facilitates two-way communication with any place in the nation by means of a telephone hookup. Anyone interested in using this service may reserve the room through Dean Anderson of the College of Agricultural Sciences.

Chairman Wang then reviewed the previous year's work, pointing out those things that should be continued. He stressed the need for a centralized service of audio-visual softwear.

Election of officers was held. Dr. M.W. Jutras was elected chairman and J.C. Hubbard, Jr., secretary. It was decided that meetings would be held the first Tuesday of each month at 4:30 p.m.

Approved - Nov. 5, 1974.

J. C. Hubbard, jr.
Secretary

NEWSLETTER/CALENDAR DEADLINES FOR
DECEMBER AND JANUARY ISSUES

To meet holiday schedules, the "Clemson Newsletter" and "Calendar" will be prepared and published according to the following deadlines:

December 1st Issue: Deadline was November 20;
contains known calendar items for period December 1 through December 15.

December 15th Issue: Deadline will be December 5;
will contain calendar items for period December 15 through January 15.

There will be no January 1 issue.

Regular schedule will resume with the January 15 issue.
Deadline for this issue will be January 5.



Christmas and the advent of a New Year are a joyous season in the year, but there are seasons in human affairs as well. As we approach 1975 with warm celebrations among family and friends, it is appropriate that we also pause to reflect on some cold, hard facts about our country—that we consider our problems, as well as count our blessings.

Suddenly, it seems we have entered a new season in American life. This nation and the world now face an age of scarcity and other grave problems that could have the most drastic effect on our lifestyles and on life itself. These conditions demand some critical thinking about who we are as a people and what we can do to solve what has become a universal human dilemma.

But in every dark hour of our country's life, honest and vigorous leadership has met with the understanding and support of the people that is essential in conquering adversity. The people—their problems, their needs, their aspirations—are the reason for this institution's existence. Leadership suggests service, and creative leadership suggests contributions to mankind. Clemson University is dedicated to that purpose.

If this new "season" is one of hard difficulty, it also can be an era of great challenge and opportunity. There are big problems to be solved. The energy crisis. The food shortage. Inflation. Providing students self-fulfillment of the human spirit and the fruitful use of their talents. And, perhaps of paramount importance, regaining our strong sense of national vision, for where there is no vision, the people perish.

I want to take this opportunity to tell each of you—the ones who make Clemson University what it is and who have demonstrated faith in its people-to-people mission—how much we appreciate all that you have accomplished in 1974. Mrs. Edwards and I offer a very special thank you, as well as wishing you Merry Christmas and a prosperous New Year.

Robert C. Edwards, Jr.

Vol. 14 No. 9

December 15, 1974

500 Fulbright-Hays Foreign Scholars to Arrive in U.S. During 1974-75

Approximately 500 senior lecturers and research scholars from 69 foreign countries representing a wide range of disciplines are scheduled to arrive in the United States during 1974-75 under the sponsorship of the Fulbright-Hays program, the Council for International Exchange of Scholars announced recently. The scholars are listed, with brief biographical data, in the 1974-75 Directory of Visiting Lecturers and Research Scholars, just off the press and now available free of charge on request to the Council. The directory is available in the Office of University Research, E-106 Martin Hall.

The numbers of scholars in the different disciplines are as follows: medical sciences, 65; biological sciences, 61; chemistry, 47; physics, 26; engineering, 32; animal and plant sciences, 23; mathematics, 20; earth sciences, 6. There are 195 in the humanities, social sciences and education, 48 of whom are in language and literature.

During their stay in the U.S., many of the foreign visitors will be available for lectures or attendance at special conferences, providing they can arrange for brief absences from teaching or research assignments at their American host institutions. Institutions and individuals interested in further information about any of the scholars listed in the directory or desiring additional copies of the publication may write or telephone the Council for International Exchange of Scholars, 2101 Constitution Avenue, N.W., Washington, D. C. 20418 (Area Code 202 389-6647).

Low Base Bids Submitted for Campus Construction

Triangle Construction Co. of Greenville and M. B. Kahn Construction Co. of Columbia have submitted apparent low base bids for construction of a dairy science research center and renovation and expansion of the agricultural engineering building at Clemson.

Triangle's bid of \$1,027,600 for the dairy center was the lowest of seven bidders. The Kahn bid of \$1,904,280 for work on McAdams Hall was lowest of six bids.

The bids must be approved by the State Budget and Control Board and Clemson's Board of Trustees before contracts are signed.

The dairy science center will contain eight buildings. It will include an automated feed center, milking parlor, maternity and calf barn, heifer shed, waste treatment facilities and experimental feed lots. It will have 68,000 square feet under roof.

The center will replace existing obsolete facilities for Clemson's expanded research and teaching in dairy operations, nutrition and breeding. Located two miles south of the main campus, the complex should be completed by mid-1976.

The on-campus construction involves a 31,000 square-foot, two-story addition to McAdams Hall and interior and exterior renovations to 32,000 square feet of existing space.

Research facilities and faculty offices will be relocated to the new addition. The old building will be used primarily for classroom teaching. The work should be completed by September 1976.



CHI EPSILON INSTALLATION — (left to right) President R.C. Edwards, Chi Epsilon National President Paul R. Munger, Clemson Chapter President Mark D. Ryckman and Clemson Dean of Engineering Lyle C. Wilcox.

Chi Epsilon Installation Held at Clemson

Two prominent Carolina engineering executives and two Clemson University professors were inducted Dec. 1 as honor members of Chi Epsilon national civil engineering fraternity.

The inductions took place during installation ceremonies for a local chapter of the national organization at the University.

The four are William S. Lee of Charlotte, N. C., senior vice president of engineering and construction, Duke Power Co.; Carlton T. Wise of Greenville, who retired last year as executive vice president of J. E. Sirrine Co.; Herbert W. Busching, head of Clemson's Civil Engineering Department; and Jack C. McCormac, civil engineering professor.

Some 50 engineers, including students, alumni and faculty members, were inducted into the new Clemson chapter, the nation's 83rd. With some 33,000 members Chi Epsilon draws its membership from the fields of civil engineering, environmental systems engineering, water resources engineering and other disciplines related to civil engineering.

Agronomy and Soils

The following papers were presented by members of the Agronomy and Soils Department at the American Society of Agronomy meeting in Chicago on Nov. 10-15. "Performance of Experimental Synthetic Varieties of Orchardgrass (*Dactylis glomerata* L.) Produced by Different Methods" by E. F. McClain (Asst. Prof.).

"Effect of Sulfur Coated Urea and Ammonium Nitrate and Time of Application on Coastal Bermuda grass Yield and Nitrogen Uptake," by C. L. Parks (Prof.) and J. R. Woodruff (Assoc. Prof.). Paper presented by Dr. Woodruff.

"Influence of Sulfur, pH and Metal Cations on Senescence of Peach Trees Growing on Coastal Plain Soils of the Southeastern United States," by U. S. Jones (Prof.), T. L. Jones (Asst. Prof.), and N. R. Page (Head, Agri. Chem. Serv.). Paper presented by Dr. U. S. Jones.

Civil Engineering

Paul B. Zielinski (Assoc. Prof.) was appointed Associate Sea Grant Director. His current research involves designing a culture tank for *Macrobrachium* larvae.

Donald B. Stafford (Assoc. Prof.) arranged for the acquisition of surplus aerial photographs valued at approximately \$15,000 from the Eastern Aerial Photography Laboratory, Agricultural Stabilization and Conservation Service, U.S.D.A., in Asheville, N. C. at no cost to the Civil Engineering Department. These photographs will be used extensively in teaching, class projects, and research.

Subhash C. Anand (Assoc. Prof.) is the senior author of a paper entitled, "Shakedown of Rolling Wheel Under Hub Loading." The paper is co-authored by Dr. V. K. Garg (G. M. Electromotive Division, La Grange, Ill.) and appeared in the Journal of the Engineering Mechanics Division, ASCE, Vol. 100, No. EMD, December 1974.

Prof. Anand also published the discussion of a paper entitled, "Stress Analysis of Hollow Cylindrical Inclusions," by S. M. Dar and R. C. Bates. The discussion appeared in the Journal of the Geotechnical Engineering Division, ASCE, Vol. 100, No. GT 11, November 1974.

Billy L. Edge (Assoc. Prof.) has been invited to serve as a member of the U. S. Army Corps of Engineers Shore Line Erosion Advisory Panel.

Continuing Engineering Education

A short course on "Brick Manufacturers" will be presented Jan. 6-10, 1975 in Olin Hall. The course is sponsored by the Ceramic Engineering Department of Clemson University and the Brick Association of the South. This course is designed for the plant foreman, superintendent, and technician in brick manufacturing plants. No previous experience in a ceramic course is required. The course chairman is Dr. G. C. Robinson (Prof. and Head, Cer. Engr.). This course is administered through Continuing Engineering Education.

Division of Engineering Services

Union Carbide's donation of a plasma arc cutting system arrived just in time for the College of Engineering's Open House, Nov. 22. This system cost \$4,500 and enables the Engineering Services welding lab to cut stainless steel plate and aluminum plate of thicknesses in excess of one inch.

Elementary and Secondary Education

James E. Matthews (Prof.) was a discussion leader for the annual Carolinas' Independent Schools Conference held in Greenville, Nov. 22. The topic of the group discussion was, "Teacher Evaluation."

English

Robert W. Hill (Asst. Prof.) directed a poetry workshop at Anderson College, Nov. 14, under the auspices of the S. C. Arts Commission, the Pegasus Society, and the Anderson Writer's Guild.

R. P. Recktenwald (Asst. Prof.) was one of the speakers at an open colloquium on linguistics at Brown University on Nov. 18.

G. W. Koon (Asst. Prof.) has published, "The Over-Production of Freshman English" in the current issue of Freshman English News.

In the current issue of the S. C. Review, R. J. Calhoun (Alumni Prof.) edited "Robert Frost in the Carolinas" and Mark Steadman (Assoc. Prof.) published "Kate," a short story. In the same issue, Mark Steadman reviewed Yount's novel, The Trapper's Last Shot, and R. O. Rogers (Asst. Prof.) reviewed Linda Paston's volume of verse, A Perfect Circle in the Sun. Also Hallman Bryant (Assoc. Prof.) reviewed Vargo's Rainstorm and Fire: Ritual in the Novels of John Updike and G. W. Koon reviewed Rankin's Francis Marion: The Swamp Fox and Earle's Manse Jolly.

Environmental Systems Engineering

J. F. Andrews (Prof.) has been appointed American Editor for Water Research. This is the official monthly publication of the International Association on Water Pollution Research. The American Editor is responsible for papers submitted for publication from the United States, Canada, Mexico and South America.

Prof. Andrews, H. O. Buhr (Visit. Assoc. Prof., Chem. Engr., Univ. of Cape Town, South Africa) and M. K. Stenstrom (Ph. D. candidate), presented a paper entitled, "Control Systems for the Reduction of Effluent Variability from the Activated

Sludge Process," at the International Conference on Effluent Variability from Wastewater Treatment Processes and Its Control, New Orleans, La., Dec. 2. The conference was sponsored by the International Association on Water Pollution Research, Tulane University and Vanderbilt University.

John Austin (Prof. and Head) attended the National Seminar on Environmental Protection at the request of the Minister of Health of Viet Nam from Nov. 5-7. Dr. Austin was one of four U. S. consultants attending the meeting. The purpose of the seminar was to review the present status of air, water, and solid waste problems in Viet Nam and suggest approaches to solving these problems. Increased industrialization and population in urban areas has created many pollution problems. The invited consultants commented on the papers presented by their Vietnamese counterparts and suggested approaches to solving these problems.

Food Science

Recent publications of J. Jen (Assoc. Prof.): "Carotenoids of Yellow and Red Lutescent Tomatoes," Journal of Agricultural and Food Chemistry 22, 908-910, and "Influence of Spectral Quality of Light on Pigment Systems of Ripening Tomatoes," Journal of Food Science 39, 907-910.

Woodie P. Williams (Prof. and Head) attended the Texas Nutrition Conference, Oct. 1-4, College Station, Texas and presented a paper entitled, "Opaque-2 Corn in Human Nutrition."

Horticulture

R. G. Halfacre (Assoc. Prof.) and J. A. Floyd, Jr. (Ag. Sci. Asst.) attended the annual meeting of the S-9 New Crops Technical Committee of U. S. D. A. in El Paso, Texas, Oct. 30 - Nov. 1 and presented the South Carolina report.

Industrial Management

E. E. Burch (Assoc. Prof.) has been elected Vice President of the Southeastern Chapter of the Institute of Management Science.

W. W. Menke (Assoc. Prof.) has been appointed a referee for the Marketing Department of the Journal of the Institute of Management Science.

B. J. Todd (Prof. and Head) served as the chairperson for a session on Societal Systems at the annual meeting of the Southeastern Chapter of the Institute of Management Science held in Miami Beach, Fla. Oct. 31 - Nov. 1.

C. H. Whitehurst, Jr. (Prof.) presented a paper entitled, "Management Science in the General Accounting Office" at the annual meeting of the Southeastern Chapter of the Institute of Management Science held in Miami Beach, Fla. Oct. 31 and Nov. 1.

E. E. Burch (Assoc. Prof.) has an article, "International Contributions to Scholarly Journals of Business: A Reply" published in the Oct. 1974 issue of the Journal of Business.

William P. Merit (Asst. Prof.) participated as a discussant in the annual convention of the Southern Management Association held in Atlanta Nov. 14-16.

Interdisciplinary Studies

James S. Wolf (Assoc. Prof.) has been invited to serve on the Board of Review of Metallurgical Transactions. The board is charged with judging the suitability of manuscripts submitted for publication to Metallurgical Transactions which serves the professional metallurgist and the materials researcher.

Prof. Wolf and J. W. Grochowski (Grad. Stu.) attended the national 1974 Materials Science Symposium held at Detroit, Mich.,

and sponsored by the American Society for Metals and the American Institute of Mining, Metallurgical and Petroleum Engineers, and presented an invited paper entitled, "Observations of the Nature of Gas-Metal Reactions under Conditions of Anisothermal Oxidation."

Languages

H. E. Stewart (Prof. and Head) was the chairman of the section on "Textbooks and Instructional Materials for 1975" at the national meeting of the American Association of Teachers of French on Nov. 29 in Denver, Colo.

Mathematical Sciences

Richard A. Lewallen (Asst. Prof.) has been selected by the Association for Computing Machinery as a SIGGRAPH (Special Interest Group on Computer Graphics) representative to the workshop on "Large Data Bases for Interactive Design," to be held at the University of Waterloo, Ontario, Canada in Sept. 1975.

D. R. LaTorre (Assoc. Prof.) published a paper, "Semilattices of bisimple orthodox semigroups," in the Semigroup Forum, Vol. 9, (1974), p. 172.

Mechanical Engineering

James G. Goree (Assoc. Prof.) presented a paper entitled, "Bonded Elastic Half Planes with an Interface Crack and a Perpendicular Intersecting Crack," at the 11th Annual Meeting of the Society of Engineering Science held at Duke University Nov. 11-13. The paper is co-authored by W. A. Venezia (Grad. Stu.).

Professional Development

J. A. Turner, Jr. (Assoc. Prof., Acct. and Fin.) will be chairperson for a program, "Income Tax Workshop," which will be held in Greenville Dec. 19-20. This program is in cooperation with the American Institute of Certified Public Accountants and the S. C. Association of CPAs.

"Special Topics in Color Science" will be a short course offered in Sirmine Hall, Jan. 13-15, 1975. F. T. Simon (J. E. Sirmine Prof. of Textiles) will be the chairperson. The course is sponsored by the Office of Professional Development and the College of Industrial Management and Textile Science.

Psychology

Bernard Caffrey (Assoc. Prof. and Head) has been named an editorial consultant for the American Educational Research Journal for 1974-75. Dr. Caffrey was co-author of a paper, "Faking Good as a problem in Comparative studies of heroin addicts," which appeared in the Oct. issue of Psychological Reports.

George O'Neill (Visit. Asst. Prof.) chaired a paper session on "Research and Technology in College and University Teaching" held at Georgia State University Nov. 14-16.

Leonard Berger (Asst. Prof.) addressed the Nov. 19th meeting of the Anderson Accounting Association. His presentation was titled, "Maximizing Human Worth in an Organization."

Recreation and Park Administration

Lawrence W. Gahan (Assoc. Prof.) presented an educational session entitled, "What Do You Need to Function Better?" for the Commissioners-Board Members branch of the

National Recreation and Park Association at the annual Congress for Recreation and Parks held in Denver, Colo., Oct. 20-26. Dr. Gahan and Lorraine Roguet also conducted a training workshop for board and commission members earlier in the Congress.

Prof. Gahan also served as consultant and guest speaker at the Board/Lay Commission Division program held as a part of the 30th Annual Conference of the North Carolina Recreation and Park Society, Winston-Salem, N. C., Nov. 12-13.

Jack Stevenson (Prof.) was chairperson of a two-day meeting of the Board of Directors, American Camping Association, Southern Region in Memphis, Tenn., Nov. 15-16. Southern Region covers 11 southeastern and southcentral states.

Textile Department

F. T. Simon (J. E. Sirrine Prof.) presented a paper entitled, "Principles of Applied Color Science" to the Instrument Society of American International Instrumentation Conference in New York City on Oct. 28. He also presented a seminar, "Color Science and Perception" at Springs Mills Research Center in Fort Mill, Nov. 18.

In cooperation with the South Carolina Textile Manufacturers Association, the College of Industrial Management and Textile Science had as their guests, approximately 50 high school seniors on Nov. 6. They were here in observance of the annual "Science in Textiles" day.

Minutes of the Administration-Faculty-Student Council, November 19, 1974

Chairman Robert Merrill called the regular meeting of the Clemson University Administration-Faculty-Student Council to order at 4:05 p.m. in the Board Room of Sikes Hall.

The following were present in addition to Chairman Robert Merrill: Rodney Sprott, C. Ronald Dillon, Kenneth E. Carpenter, Lewis T. Fitch, E. H. McCarter, M. N. Lomax, Joseph B. McDevitt and George Moore, Secretary.

That portion of the minutes of the meeting of September 25, 1974 enumerating items for an agenda that reads, title IX of the Civil Rights Act, was corrected to read title IX of the Education Amendments of 1972. Otherwise the minutes were approved as distributed.

Several of the proposed agenda items were discussed briefly with the object of determining at what point the Council should become involved in serious consideration of any specific subject.

Admiral McDevitt is preparing for Council members copies of all existing University policies. A review of these policies was generally agreed to as a starting point for considering the "two-way communications" topic.

Other topics are to be made more specific or, as in the case of the number of honor graduates topic, are to await actions or conclusions by any councils, committees, etc. that may presently have the subjects under consideration.

The next meeting of AFSC was scheduled for December 3, 1974 at 4:00 p.m. in Sikes Hall Board Room. The call to adjourn came at 5:45 p.m.

George Moore
Secretary

Minutes of the Undergraduate Council, October 25, 1974

The Undergraduate Council met in the Conference Room, E-103A Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Lamar H. Brown, Claire O. Caskey, Bingham M. Cool, James C. Fanning, Ralph W. Gilchrist, Viktor Jonkoff (Student Represen-

tative), John H. Rodgers, George C. Skelley, Jerry Stonemetz (Student Representative), Edward A. Vaughn, and Kenneth N. Vickery.

The minutes of the October 4, 1974, meeting were approved as distributed.

The Council agreed to meet on Friday afternoon, November 22, 1974. This meeting will take the place of the one which would normally be scheduled for December 6, 1974.

College of Agricultural Sciences

Approval was given to a recommendation for the listing of degrees and transcript designations to become effective with May 1976 Commencement. (A copy of the recommended listings is attached to these minutes.)

College of Education

The following course changes were approved:

- In Ed 421
Vocational Cooperative Programs, 3 cr. (3 and 0)
- In Ed 438
Advanced Machining, 3 cr. (1 and 6)
- MS 101
Fundamentals (Basic), 1 cr. (1 and 2 every other week)
- MS 102
General Military (Basic), 1 cr. (1 and 2 every other week)
- MS 201
Fundamentals of Small Unit Operations and Land Navigation, 1 cr. (1 and 2 every other week)
- MS 202
Military History (Basic), 1 cr. (1 and 2 every other week)

College of Industrial Management and Textile Science

The following new courses and course changes were approved:

- Fin 306
Corporation Finance, 3 cr. (3 and 0)
- Fin 402
Capital Budgeting, 3 cr. (3 and 0)
- IM 410
Directed Research in Marketing, 1 cr. (1 and 0)

Approval was given to delete Math 207, Multiple Dimension Calculus, 3 cr. (3 and 0) as a required course in the Accounting curriculum and to replace it with Math 231, Mathematics of Life Insurance, 3 cr. (3 and 0).

College of Liberal Arts

The Undergraduate Council endorsed the proposal to offer French 202 and French 498 in Paris, France, during the Christmas vacation of 1974.

The following courses were approved:

- Engl 482
Special Topics, 3 cr. (3 and 0)
- Fr 299
Foreign Language Drama Laboratory, 1 cr. (0 and 3)
- Ger 299
Foreign Language Drama Laboratory, 1 cr. (0 and 3)
- Ital 101
Elementary Italian, 4 cr. (3 and 1)
- Ital 102
Elementary Italian, 4 cr. (3 and 1)
- Ital 201
Intermediate Italian, 3 cr. (3 and 0)
- Ital 202
Intermediate Italian, 3 cr. (3 and 0)
- Soc 343
Sociology of Death, 3 cr. (3 and 0)
- Soc 443
Sociology of Religion, 3 cr. (3 and 0)
- Span 299
Foreign Language Drama Laboratory, 1 cr. (0 and 3)

College of Agricultural Sciences

Degree and Transcript Designations Effective with the May 1976 Commencement

<u>Undergraduate Curriculum</u>	<u>Diploma</u>	<u>Graduation Program</u>	<u>Posting on Academic Record</u>
Agricultural Economics	B.S.-Ag Ec	B.S.-Ag Ec	B.S.-Ag Ec
Agricultural Education	B.S.-Ag Ed	B.S.-Ag Ed	B.S.-Ag Ed (See College of Education)
Agricultural Engineering	B.S.-Ag E	B.S.-Ag E	B.S.-Ag E (See College of Engineering)
Agricultural Mechanization and Business	B.S.-AgM&Bus	B.S.-AgM&Bus	B.S.-AgM&Bus
Animal Industries	B.S.-An Ind	B.S.-An Ind	B.S.-An Ind (Animal Science) B.S.-An Ind (Dairy Science) B.S.-An Ind (Poultry Science)
Community and Rural Development	B.S.-CRD	B.S.-CRD	B.S.-CRD
Economic Biology	B.S.-Econ Biol	B.S.-Econ Biol	B.S.-Econ Biol (Economic Zoology) B.S.-Econ Biol (Entomology) B.S.-Econ Biol (Plant Pathology)
Food Science	B.S.-Fd Sc	B.S.-Fd Sc	B.S.-Fd Sc
Plant Sciences	B.S.-Pl Sc	B.S.-Pl Sc	B.S.-Pl Sc (Agronomy--Crops and soils) B.S.-Pl Sc (Horticulture--Fruit & Vegetable) B.S.-Pl Sc (Horticulture--Orna-mental)
Pre-Veterinary	No degree in Pre-Veterinary (Student may transfer to a degree program in An Ind, Econ Biol, or Zool)	No degree in Pre-Veterinary (Student may transfer to a degree program in An Ind, Econ Biol, or Zool)	Pre-Veterinary, An Ind (An Sc), An Ind (Dy Sc), An Ind (PS), Econ Biol (Econ Zool), or Zool, as appropriate

Minutes of the University Extension Council, October 31, 1974

The University Extension Council met in Room E-103 Martin Hall. The following were present: S. M. Willis, Presiding; M. P. Batson (for L. R. Goldberg); W. C. Capel; V. S. Hodges; H. D. Marett; L. E. Nix (for G. D. Kessler); E. Park; S. L. Parks; D. H. Pate; J. B. Taylor; G. R. von Tungeln; and C. A. Thomas. N. R. Bauld and F. T. Simon were absent.

The meeting was called to order at 3:05 p.m. by the chairperson, S. M. Willis. S. L. Parks was asked to continue as recorded for the Council and agreed to do so.

Continuing Education Unit: Two items were brought up for discussion regarding awarding continuing education units.

1. The awarding of continuing education units for course work at a level other than collegiate, such as high school or vocational school level: A brief discussion ensued. It was agreed that if a course developed within an academic unit of the University met other requirements for continuing education unit standing, it should be awarded continuing education credit.

2. The number of persons enrolled in instructional program: The question was raised regarding one person attendance. The group agreed as long as the program of study was organized including a plan for instruction and evaluation it met requirements for and could be awarded continuing education units. The number of participants was not considered a significant factor.

University Study of Duplication: Dean Willis indicated that a University-wide program to identify areas of duplication of efforts was being initiated. A working committee of three from each of the four University councils: Undergraduate Council, Graduate Council, Research Council, and Extension Council will be appointed. These are to be representa-

tive of the University at large. These committees will report back to the Councils. The Ad Hoc Committee of the Extension Council is: N. R. Bauld, chairperson, S. L. Parks, and G. R. von Tungeln. The charge to the committee was to document those areas where duplication of efforts is found in the extension and public service offerings of the University. No judgment need be executed by this committee regarding necessary or unnecessary duplication. The documentation report should be completed for report to the Extension Council by March 1, 1975. All Deans have been apprised of this study and will cooperate with the working committees.

Continuing Education Center: The plans continue in the working stages for the new Continuing Education Center. The group discussed the proposed center. It is hoped that construction will begin as soon as possible because of the effect of inflation on the appropriated funds. Dean Willis indicated the preliminary studies of the program have been presented to the building committed by the selected architectural firm of Craig and Gaulden in Greenville.

New Members: The new members of the Council were acknowledged, D. H. Pate, and V. S. Hodges. The chairperson announced that Dean Hurst had appointed F. H. Hedden as the Faculty Senate representative on the Extension Council.

The meeting adjourned at 3:50 p.m.

Respectfully submitted,
Suzanne Parks

Minutes of the Scholarships and Awards Committee Meeting, October 16, 1974

The Scholarships and Awards Committee met in Room E-103 Martin Hall, Chairperson Corinne Sawyer presiding. Members absent were: J. L. Stevenson and W. A. Phillips.

The meeting opened with the acceptance of the September 26, 1974 minutes as circulated.

Dr. Sawyer made several points concerning the Hoke Sloan Scholarship. In order for such scholarships to be acceptable, it will be necessary that the recipient selection procedures adhere to those standard procedures approved by the Educational Council on October 1, 1973. Further information will be gathered by Dr. Sawyer including determining if the criteria will meet with the approval of the Donor.

The cases of two Clemson University athletes were brought to the attention of the Committee concerning violations of Rule 12 (Curfew will be at 12:00 midnight, Sunday through Wednesday, 11:00 p.m. Thursday, 2:00 a.m. Sunday morning with exceptions when curfew is specifically lifted. Football players are expected to have lights out at these designated times.) and Rule 13 (Open dorms on Sunday only from lunch until 10:00 p.m. for the 1974-75 year only as an experiment) of the "Football Players Code of Conduct." It was pointed out that both players had been given the opportunity to appeal their coach's decision and appear in person before the Committee and that both had declined. After a discussion of the facts brought before the Committee, a motion was made to remove the Athletic Grants in Aid of these two students as recommended by Red Parker, football coach for Clemson University. The motion passed and the removal was effective immediately.

Dr. Sawyer went to the next order of business, that being the utilization of the money generated by the Consolidated Memorial Fund, gifts to Clemson University for less than \$2,000. A motion was made to utilize the money generated by placing it in the Scholarships for Scholars fund. Colonel Bloss explained the purpose for the Scholarship for Scholars and the criteria for selection. After a general discussion by the Committee members, a suggested substitute motion was made to create a new scholarship, the basis for this scholarship to be determined at the next meeting. The Committee informally agreed to make a decision at the next meeting.

A last order of business was called to the attention of the Committee by Colonel

Bloss, that being the presentation of a plaque to take the place of the Norris Medal, due to the high cost of the medal. Marvin Carmichael showed the Committee members sample plaques and a preliminary design for the plaque. The Committee requested more information on the cost of the Norris Medal and other possible alternatives.

There being no further business, the meeting was adjourned at 5:05 p.m.

Respectfully submitted:
Marvin G. Carmichael
Secretary

University Research Council Minutes, October 25, 1974

The University Research Council met at 1:15 p.m. on Friday, October 25, 1974 in the Conference Room of E-103 Martin Hall. Dean Henningson called the meeting to order. Those present were: Prof. George C. Means, Jr., Dr. Edwin M. Coulter, Dr. Robert W. McLellan, Dr. Billy L. Edge, Dr. D. W. Lyons, Mr. John C. Zimmerman, and Mr. H. E. Prince. Mr. H. E. Prince, a new member of the Council from the undergraduate student body was introduced.

The minutes of the August 30, 1974 Council meeting were approved as distributed.

The composition of the Faculty Research Committee was reported. Those Research Council members with unexpired terms were reappointed to the Faculty Research Committee and three new college representatives (from Agricultural Sciences, Industrial Management and Textile Science, and Engineering) were appointed. The appointments and expiration years are as follows: Prof. George C. Means, Jr., Architecture (1975); Dr. O. John Jacobus, PM&BS (1975); Dr. Lloyd H. Blanton, Education (1975); Dr. Edwin M. Coulter, Liberal Arts (1976); Dr. Gwendolen Lee, Nursing (1976); Dr. Robert W. McLellan, F&RR (1976); Dr. P. F. Rad, Engineering (1977); Dr. D. W. Lyons, IM&TS (1977); and Dr. Earlene A. Rupert, Agricultural sciences (1977).

The role and function of the Council (as set forth in paragraphs one, four, and five of FS-74-3-3) was discussed. Council members are appointed from each college on recommendation of deans and are therefore college representatives. It was emphasized that in order to effectively convey, from the faculty to the administration, advice concerning the policies, procedures, and regulations governing the climate within which research is conducted, Council members must be familiar with both their College and the University research policies, procedures, and regulations. Copies of FS-74-3-3 were distributed to the Council and members were urged to discuss, with Faculty Senate Research Committee members, the Senate intent in originating and passing the resolution creating the University Research Council.

Consideration of University patent and copyright policies was then initiated. It was pointed out that the University has no copyright policies but there is a University Patent Committee which

functions under a University agreement with Research Corporation. After discussion, it was recommended that this matter be continued through the work of a three-man Council Committee to be appointed in December.

During an open discussion of University research policies, procedures, and regulations it became apparent that college policies, procedures and regulations differed and that faculty often considered college policies, procedures, and regulations to be those of the University. It was agreed that each Council member would bring to the November meeting, for discussion and information purposes, either printed copies of each college's research policies, procedures, and regulations or a written statement of what these were understood to be.

The next meeting of the University Research Council has been tentatively scheduled for November 22, 1974.

A motion was made, seconded and approved to adjourn the meeting.

Calendar of Campus Events

December

- 16 -- General Faculty and Staff Meeting, 4:15 p.m., Tillman Hall Auditorium.
- 19 -- Mid-Year Graduation, 11:15 a.m., Littlejohn Coliseum.

January

- 2 -- Fort Hill Clemson Club Tip-Off Luncheon, 12:00 Noon, Clemson House.
- 4 -- Basketball: Virginia, 8:00 p.m., Littlejohn Coliseum.
- 5 -- Architecture Exhibition: Dismantling of a Landmark, scaled drawings of architectural details and a photographic record of the dismantling of five New York City buildings erected in 1849. Rudolph Lee Gallery, College of Architecture. Gallery open 9 - 4:30 p.m., weekdays.
- 6 -- Orientation, new students.
- 6 -- Intramural Sports: Basketball-men, basketball-women, handball. Entries close Jan. 17, for further information contact the Intramural Sports Office, 656-2116.

- 7 -- Registration, all students.
- 9 -- Classes begin regular schedule.
- 9 -- Womens Club: "Carlyn's Today Show," 9:30 a.m., Clemson House.
- 13 -- Intramural Sports: Racket Ball, entries close Jan. 17. For further information contact the Intramural Sports Office, 656-2116.
- 11 -- Architecture Seminar and Reception: An informal presentation by the jurors with their comments on the South Carolina Arts Commission Invitational Exhibit on display at Lee Gallery January 12 through February 9, 1975. The seminar will be from 2:00 - 4:00 p.m., the reception will be from 8:30 - 10:30 p.m. The exhibit will be open to the public on January 12. Gallery open 9:00 - 4:30 p.m. weekdays.

WEPR Highlights

December

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI 89.3-FM, Charleston.

- 16 Shakespeare Scene-by-Scene: Othello Conclusion with Dr. Ray Barfield, Clemson English Dept., 11:00 a.m.
- 17 Music from the Mountains: Clemson Sings Christmas with Edith Card, Clemson Music Dept., Noon & 7:45 p.m.
- 18 Environment'74: The Alien Environment, part one of a two-part special using voice tapes of Apollo flights provided by NASA, including Christmas 1968 from the moon with Henry Cheney, Noon & 7:45 p.m.
- 18,21 Political Issues: (18) China: Prospects for Detente with Dr. N. Jacobs, Miami of Ohio, Host: Dr. Ed Coulter, Clemson Political Science Dept., 11:00 a.m. (21) Program repeated, 6:30 p.m.
- 18,28 Word-Go-Round: (18) Words from New York Times Magazine with Herman and Mary Felder, 11:30 a.m. (28) Program repeated, 6:45 p.m.
- 19 Christmas Around the World: Performance by foreign students and faculty at Clemson University Women's Club, 11:00 a.m.
- 19 Poetry Today: Christmas Theme Poems with Dr. Robert W. Hill, Noon & 7:45 p.m.
- 20 Food for Thought: Holiday Foods with Marie Hindman, Extension Service, Noon & 7:45 p.m.
- 20 Christmas Special: Greenville Civic Chorale, 12:30 p.m.
- 20 Christmas Special: The Unpublished Adventures of Santa Claus with Regis Frye, Dept. of Recreation and Park Administration, 1:30 p.m.
- 20 Majors and Minors: Janacek comes to the Met with Dr. Ray Barfield, 2:30 p.m.
- 20 Christmas Collection: 11:00 a.m.

- 21 A Christmas Special: A Child's Christmas in Wales with Dr. Robert W. Hill, 6:30 p.m.
- 21 Performance: Furman University Chorus, 9:00 p.m.
- 21 Majors and Minors: Grandpa's Musical Sins with Dr. Ray Barfield, 10:30 p.m.
- 23 Christmas Special: The Clemson University Chorus under Dr. John Butler, in its fall repertoire, 11:00 a.m.
- 24 Christmas Special: The Second Shepherd's Play, 9:30 p.m.
- 24 Music from the Mountains: Christmas in the Parlor with Edith Card, Noon & 7:45 p.m.
- 24 Christmas Special: The Nutcracker Suite, 10:30 p.m.
- 24 Christmas Special: The Furman University Chorus and the Christ Church Boy Choir, 11:00 a.m.
- 25 Christmas Special: Singing Christmas Tree, Greenville, 11:00 a.m.
- 26 Poetry Today: Emily Dickenson with Dr. Robert W. Hill, Noon & 7:45 p.m.
- 27 Food for Thought: Lunch: Neglected Meal with Marie Hindman, Noon & 2:45 p.m.
- 27 Majors and Minors: Time In, Time Out, Time's Up with Dr. Ray Barfield, 2:30 p.m.
- 28 Majors and Minors: Music for Cervantes with Dr. Ray Barfield, 10:30 p.m.
- 31 Music from the Mountains: Animal Songs with Edith Card, Noon & 7:45 p.m.
- 31 New Year's Eve Special: 10:30 p.m.

January

- 1 Environment '75: The Alien Environment, part two of a two-part special using voice tapes of Apollo flights provided by NASA, including Christmas 1968 from the moon with Henry Cheney, Noon and 7:45 p.m.
- 1,4,8, Political Issues: (1) Political Reform, 11:00 a.m., (4) Program repeated, 11,15 6:30 p.m., (8) Marijuana Legislation with Bill Cappell, Clemson Sociology Dept., 11:00 a.m., (11) Program repeated, 6:30 p.m., (15) Watergate Trial: Justice in America with Horace Fleming, Political Science Dept., 11:00 a.m. Host: Dr. Ed. Coulter
- 2 Poetry Today: Gary Ligi with Dr. Robert W. Hill, Noon & 7:45 p.m.
- 3 Food for Thought: Meat Buying with Marie Hindman, Noon & 7:45 p.m.
- 4 Majors and Minors: Getting organized with Robert Moffett on 19th century tracker organ, Pelzer Presbyterian Church, 10:30 p.m.
- 8 Environment '75 Wood: A Modern Structural Material, Noon & 7:45 p.m.
- 8,11, Word-Go-Round: (8) Examples of Degeneration, 11:30 a.m., (11) Program 15 repeated, 6:45 p.m., (15) Words from Classical Myths 11:30 a.m. with Herman and Mary Felder.

- 10 Food for Thought: Meat Storage with Doris Fearington, Extension Service, Noon & 7:45 p.m.
- 11 Majors and Minors: Met at the Met with Dr. Ray Barfield, 10:30 p.m.
- 15 Environment '75: Energy Shortage Effect on Chemical Industry, Noon & 7:45 p.m.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

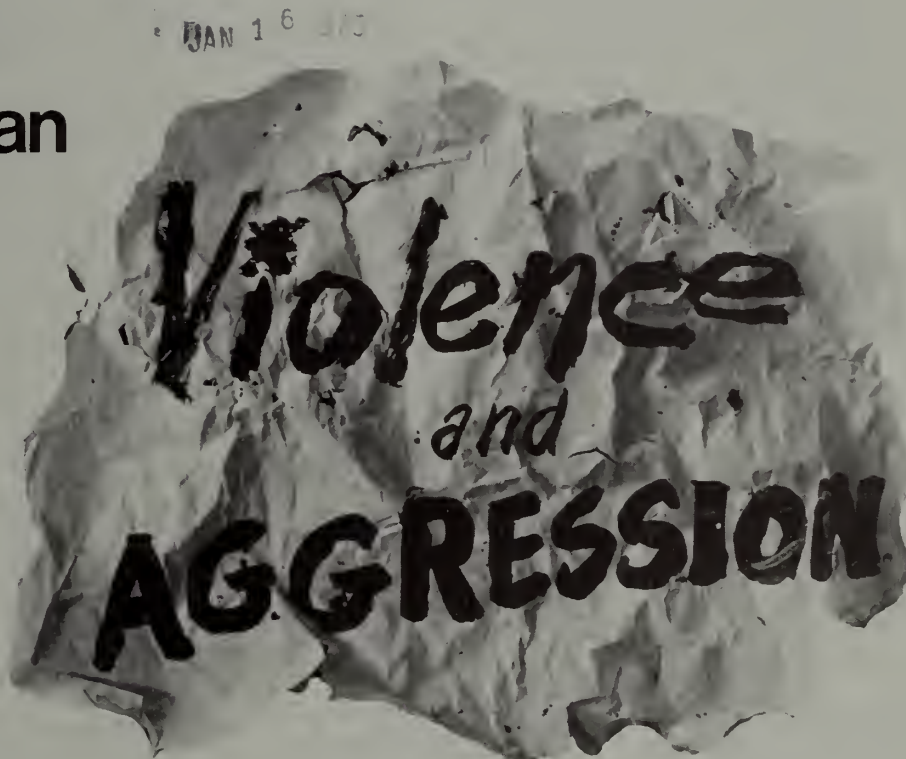
INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 11

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

January 15, 1975

Perspectives on American



"Perspectives on American Violence and Aggression" will be the subject of the second annual College of Liberal Arts Lecture Series at Clemson University this semester.

Film director Sam Peckinpah ("The Wild Bunch," "Straw Dogs") and movie critic Andrew Sarris of the "Village Voice" are the first guest lecturers in the 10-part series.

Sarris will speak on "The Treatment of Violence in the Movies" Jan. 15. Peckinpah's topic is "Violence Brings a Message" on Jan. 16. All the lectures will be at 7:30 p.m. in Daniel Hall Auditorium. The programs are open to the public at no charge.

The series brings to South Carolina 12 experts in diverse fields ranging from films and psychology to criminology. It

will conclude April 10 with a public participation workshop dealing with aggressive behavior in local communities.

The program is co-sponsored by the South Carolina Committee for the Humanities, the National Endowment for the Humanities, and Clemson's College of Liberal Arts.

"We're going to examine the causes, manifestations and control of violence and aggression in the United States," said program chairman David J. Marx, a Clemson psychology professor. "One major focal point will be on antisocial behavior in the Piedmont region," he said.

The programs are clustered under six major topics: violence in movies (Sarris and Peckinpah); recorded violence (historical); mass media and aggressive behavior; violence in American society; alternatives to aggression; and aggressive behavior in South Carolina.

The other individual topics and speakers are:

Jan. 30, "The Violence of Southern Lynchings" by historian Michael Wallace of the John Jay College of Criminal Justice.

Feb. 19, "Determining the Effects of TV Violence" by psychologist Robert M. Liebert, who served as principal researcher for the U. S. Surgeon General's Advisory Committee on Television. Also, "Mass Media Effects: Some General Issues in the Regulation of Aggression" by psychologist Seymour Feshbach, internationally recognized authority on aggression.

Feb. 20, "A Field Experiment in TV and Antisocial Behavior," Stanley Milgram, who is well-known for his work on cities, crowds and several original experimental techniques.

March 5, "One Aspect of Aggression Control in a Violent Society" by Kenneth E. Moyer, editor-in-chief of the journal "Aggressive Behavior." Also, "The American Terrorist Syndrome" by Hans Toch of the Graduate School of Criminal Justice, State University of New York at Albany.

March 6, "Culture and Violence," Marvin E. Wolfgang, director of the Center for Studies in Criminology and Criminal Law, University of Pennsylvania.

April 2, "Alternatives to Violence: Non-violent Activism" by philosopher Beverly Woodward, an associate fellow at the Institute for Policy Studies in Washington, D. C. Also, "Nonviolent Action as Creative Conflict" by sociologist Paul Wehr, who is executive director of the Consortium on Peace Research, Education and Development at the University of Colorado.

April 3, "The Role of Law in Precipitating Violence and Peace," Burns H. Weston, professor of law and director of the Center for World Order Studies at the University of Iowa.

April 10, panel discussion involving community leaders from the Piedmont area. Topics to be discussed include local

incidence of family violence, juvenile delinquency, battered children and other criminal acts.

533 Degrees Awarded at Mid-Year Graduation

Clemson awarded 533 degrees, including 183 advanced degrees, at its mid-year graduation exercises Thursday, Dec. 19.

President Robert C. Edwards conferred 348 bachelor's, two associate in arts, 161 master's and 13 doctoral degrees, and awarded nine educational specialist certificates.

Including ceremonies in May and August, Clemson awarded 2,140 degrees during 1974, a 13 per cent increase over 1973.

Faculty Research Committee Approves Grants

Clemson's Faculty Research Committee has approved 19 grants for research in fields ranging from architecture to zoology.

A total of \$15,395 was approved, with sums for individual projects listed at \$200 to \$2,300.

Topics include "Personality Factors in the Biofeedback Training," "Back-Lash: Physician Reaction to Drug-Abuse Publicity," "Reading Levels and Effectiveness of Teachers in South Carolina," "Reorganizing Local Government: The Hilton Head, S. C., Experience," and "High-Risk College Freshmen - Dropouts or Graduates?"

The 1974-75 grants were approved earlier this month. The grants are supported by the Clemson Alumni Association and the Kress Endowment.

Agricultural Education Scholarship Established

A new scholarship to assist Clemson students who major in agricultural education has been established by Moody-Godley Auction Co. of Darlington.

The company has presented an initial gift of \$2,000 to the University to establish the scholarship fund.

A \$1,000 scholarship will be awarded once each year beginning next August. The recipient must be an incoming freshman and South Carolina resident planning to major in agricultural education. The primary qualification is the recipient's potential for contribution to the field of agriculture.

The scholarship can be renewed each year for a student who maintains satisfactory academic performance. Recipients will be selected by the University Scholarships and Awards Committee based on recommendations of the department of agricultural education.

Interested students should contact the Financial Aid Office at Clemson or Earl T. Carpenter, head of the Agricultural Education Department.

Women's Tennis Club and Team Organized at Clemson

The tennis courts at Clemson are being dotted more frequently by female tennis buffs now that the University is organizing both a women's tennis club and an intercollegiate women's tennis team.

The tennis team is the third women's intercollegiate athletic team formed here. The others are fencing and swimming.

The process of becoming recognized as first a club and then a team began with the fall semester when a student from Lancaster, Mary Jane Aiken, took the initiative and circulated a petition requesting that a women's tennis team be organized at Clemson University.

"Although there appeared to be a lot of interest, girls seemed to be excluded from sports at Clemson," says Aiken.

A second and a third petition were circulated in October before the tennis club was formed from which the team was drawn.

J. Banks McFadden, director of Intramural Athletics, then suggested Mary Kennerty of Charleston, a graduate student in education, as coach and "got the ball rolling," says Aiken.

Evaluated on the basis of sportsmanship, potential, ability and attitude, 13 girls were chosen by Kennerty to head the team and an additional 8 were chosen to comprise the challenge team.

Kennerty, who is a member of the U. S. Professional Tennis Association and has worked with women's tennis star Billie Jean King, says that all of the team members have a good deal of potential but "need a lot of practice on basic fundamentals, conditioning and advanced techniques."

Practice gets in full swing again this month for the March and April matches against some of the 13 schools in South Carolina which have women's tennis teams.

Coach Kennerty believes that Clemson's first women's tennis team will have a successful opening season. "All of the players are capable of improving," she says, "but it will take a lot of hard work."

Aiken, too, believes that the team has a lot of potential. "It looks like we've come a long way and we'll go a long way," she says.

Distinguished Poet to Read

Laurence Lieberman, Poet-in-Residence and Professor of English at the University of Illinois, will read his poetry at 4:30 p.m. in Daniel Auditorium, Wednesday, January 22.

Professor Lieberman has recently published his second volume of poetry, Osprey Suicides, and will shortly see his collected essays on contemporary poetry in print by the University of Illinois Press. The essays are drawn largely from his extensive reviewing for such prestigious journals as Poetry, Hudson Review, and

Yale Review. The poet Mark Strand has remarked, "Lieberman's new poems are radiant with energy and intelligence. They are grand, big-gestured, hypnotic..." His poems have appeared in New Yorker, Poetry, Hudson Review, Paris Review, Yale Review, Shenandoah, Quarterly Review of Literature, Saturday Review, as well as our own South Carolina Review. His work has appeared in many anthologies, including the New Yorker Book of Poems, the best of forty years. His recent activities on the poetry-reading circuit have taken him to Oklahoma, Texas, Wisconsin, Michigan, Minnesota, Ohio, Pennsylvania and Rhode Island.

In 1972 he was in Japan on a fellowship from the Center for Advanced Studies at the University of Illinois, a trip whose experiences are now being worked into Lieberman's poetry.

Short Courses Open to Faculty and Staff

A number of University Union sponsored short courses will begin in January. These courses are open to faculty and staff as well as students. Included will be courses in yoga, square dancing, beginning ballet, weaving, chair caning, wine tasting and belly dancing. For more information, contact the Student Union, 656-2460.

Agricultural Economics and Rural Sociology

The department of Agricultural Economics and Rural Sociology has received a \$10,000 grant for the 1974-75 fiscal year from the USDA, Federal-State Marketing Improvement Program to study utilization of computers to provide up-to-date marketing facts and analyses for South Carolina farmers. W. O. Mizelle (Instr.) and Ansel King (Asst. Prof.) will provide leadership in this service.

Biochemistry

J. M. Shively (Prof. and Head) presented an invited seminar entitled, "What is a

carboxysome" to the staff and students of the Radiation Biology Laboratory, Smithsonian Institution, Rockville, Md., on Dec. 6.

Office of the Dean of The University

Victor Hurst (Vice Pres. for Academic Affairs and Dean of the University) has been elected vice-president of the Conference of Academic Deans of the Southern States. The meeting of this group was held on Dec. 10 in Dallas, Texas, in conjunction with the Annual Meeting of the Southern Association of Colleges and Schools.

Elementary and Secondary Education

Barbara M. Raetsch (Asst. Prof.) presented a paper titled, "Short term Memory and Reading-related Language Patterns," at the 18th annual meeting of the College Reading Association in Bethesda, Md., Nov. 1.

Virginia Stanley (Instr.) conducted an in-service session on "Teaching Oral Communications Skills in the Elementary Classroom" at West Greenville Elementary School.

Elizabeth B. Galloway (Assoc. Prof.) has held three fall in-service sessions for Anderson District Five. The topics discussed were, "Grouping for Reading," "Introduction of New Instructional Techniques," and "Utilization of Instructional Materials and Equipment." Dr. Galloway also conducted a fall in-service program for Anderson District One teachers. "Learning Centers in Reading" was the topic of discussion.

Prof. Galloway served as consultant to the Group, "Getting Ready for the Visiting Committee" at the fall meeting of the South Carolina Elementary Division of Southern Association of Colleges and Schools, Nov. 21.

Prof. Galloway gave a speech entitled, "Modular-Based In-Service Programs," Nov. 15 at the Washington Hilton Hotel, 3rd

Southeastern Regional Conference, International Reading Association, Washington, D. C.

Prof. Galloway also served as a consultant to Title III, ESEA Project in Florence Public Schools.

English

Janice Sargent (Instr. in Speech) has been elected to membership on the Legislative Council of the Speech Communication Association.

Charles L. Montgomery (Instr. in Speech) published "Non-SCONPO Forensics" in the fall issue of Speaker and Gavel.

Geology

Villard S. Griffin, Jr. (Assoc. Prof.) has recently published an article entitled, "Progress report on a geologic study in Anderson County, South Carolina," in Geologic Notes, v. 18, N. 1, pp. 13-23.

Robert D. Hatcher, Jr. (Assoc. Prof.) presented a paper entitled, "Regional Structural Relationships of the Chauga Belt-Western Mobilized Inner Piedmont of the Crystalline Southern Appalachians of Northeast Georgia and South Carolina," at the annual meeting of the Geological Society of America in Miami Beach, Nov. 18-20.

Prof. Hatcher also conducted a field conference and seminar from Columbia to Knoxville, Tenn., across the Southern Appalachians, Nov. 21-25 for several geologists from the Geological Survey of Canada and Canadian universities. Assisting Prof. Hatcher were geologists from the University of North Carolina, University of Tennessee and the U. S. Geological Survey.

History

James E. Sargent (Asst. Prof.) has reviewed Jules Archer, The Plot to Seize the White House (Hawthorn Books, 1973) in The History Teacher, VIII (Nov. 1974).

Joseph L. Arbena (Assoc. Prof.) has published a review of Richard Graham and Peter H. Smith, eds., New Approaches to Latin American History, in History: Review of New Books, 3(Nov./Dec. 1974), 40.

Physics and Astronomy

P. B. Burt (Prof.) was an invited participant at an international symposium on mathematical physics sponsored by the University of Warsaw and the University of Texas (Austin), Nov. 18-22. He lectured on "Quantization of Solitary Waves in Nonlinear Field Theories."

Beverly B. Bookmyer (Assoc. Prof.) addressed the Junior Academy of Sciences at their workshop held at Clemson University on Dec. 7.

The following papers were presented at the SESAPS meeting held in Atlanta Dec. 5-7:

A. L. Lasker (Assoc. Prof.) and D. L. Foster (Grad. Stu.), "Diffusion of Sodium Tracer in Potassium Azide."

Prof. Laskar and J. D. Heneisen (former Grad. Stu.), "Proton Transfer Versus Schottky Defect Motion in Ammonium Chloride."

John P. McKelvey (Prof. of Physics and Head) presented a paper entitled, "The Solution of Transcendental Equations with the 'Electronic Slide Rule'" at the recent meeting of the American Physical Society and SESAPS in Atlanta Dec. 5-7.

Poultry Science

An unrestricted gift of \$3,000 was provided by the Campbell Soup Company for use by the Poultry Science Department.

Recreation and Park Administration

C. R. White (Asst. Prof.) conducted a Grand Round Session titled, "Values of Therapeutic Camping and the Recreation - Outdoor Education Research Laboratory" for the professional and trainee staff

of the William S. Hall Psychiatric Institute on Dec. 16.

Minutes of the Educational Council Meeting, December 2, 1974

Present: Robert C. Edwards, presiding;
Victor Hurst, Melford A. Wilson, Stanley G. Nicholas, Joseph B. McDevitt, Walter T. Cox, Luther P. Anderson, H. Morris Cox, C. R. Dillon, Farrell B. Brown, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis, and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of November 4, 1974, were approved as submitted.

2. Undergraduate Degrees and Transcript Designations

Statement and Recommendation: The Dean of the University recommended that the listing of undergraduate degrees and transcript designations from the College of Agricultural Sciences be approved to become effective with the May 1976 commencement. (See page 9 of December 15 Newsletter for listing.)

3. Curriculum Changes

Statement and Recommendation: The Dean of the University recommended additions, deletions, and changes in the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Courses

Ent 401

Insect Pests of Ornamental Plants and Shade Trees (Replaces Ent 458), 3 cr. (2 and 3)

Ent 403

Field Crop Insects, 3 cr. (2 and 3)

Ent 404

Structural, Industrial and Household

Insects, 3 cr. (2 and 3)

Ent 469

Aquatic Insects, 3 cr. (2 and 3)

Gen 461

Biometrical Genetics, 3 cr. (3 and 0)

(B) Undergraduate Course Changes

Hort 414

Retail Flower Business (Change in credit hours from 1 cr. (1 and 0), 2 cr. (2 and 0)

Hort 416

Floral Design (Change in credit hours from 1 cr. (0 and 3), 2 cr. (1 and 3)

(C) New Graduate Courses

Ent 601

Insect Pests of Ornamental Plants and Shade Trees (Replaces Ent 658), 3 cr. (2 and 3)

Ent 603

Field Crop Insects, 3 cr. (2 and 3)

Ent 604

Structural, Industrial and Household Insects, 3 cr. (2 and 3)

Ent 669

Aquatic Insects, 3 cr. (2 and 3)

WB 850

Marine Aquaculture, 3 cr. (3 and 0)

WB 852

Parasites and Diseases of Marine Animals, 3 cr. (2 and 3)

(D) Graduate Course Changes

Hort 614

Retail Flower Business (Change in credit hours from 1 cr. (1 and 0), 2 cr. (2 and 0)

Hort 616

Floral Design (Change in credit hours from 1 cr. (0 and 3), 2 cr. (1 and 3)

II. COLLEGE OF EDUCATION

(A) Undergraduate Course Changes

InEd 421

Vocational Cooperative Programs (Change in credit hours from 2 cr. (2 and 0) and addition of prerequisite.), 3 cr. (3 and 0)

InEd 438

Advanced Machining (Change in credit hours from 2 cr. (0 and 6) and addition of prerequisite.), 3 cr. (1 and 6)

*MS 101

Fundamentals (Basic) Change from 1 cr. (2 and 1), 1 cr. (1 and 2 - every other week)

*MS 102

General Military (Basic) Change from 1 cr. (2 and 1), 1 cr. (1 and 2 - every other week)

*MS 201

Fundamentals of Small Unit Operations & Land Navigation Change from 1 cr. (2 and 1), 1 cr. (1 and 2 - every other week)

*MS 202

Military History (Basic) Change from 1 cr. (2 and 1), 1 cr. (1 and 2 - every other week)

(*) Approved by mail ballot

(B) Graduate Course Change

InEd 638

Advanced Machining (Change in credit hours from 2 cr. (0 and 6) and addition of prerequisite.), 3 cr. (1 and 6)

III. COLLEGE OF ENGINEERING

(A) New Graduate Courses

AC 810

Modeling and Control of Engineering Systems (Replaces CT 810), 3 cr. (3 and 0)

AC 811

Modern Control Theory (Replaces CT 811), 3 cr. (3 and 0)

AC 815

Nonlinear Controls (Replaces CT 815), 3 cr. (3 and 0)

AC 820

Digital Control I (Replaces CT 820), 3 cr. (3 and 0)

AC 821

Digital Control II (Replaces CT 821), 3 cr. (3 and 0)

AC 910

Adaptive and Optimal Control (Replaces CT 910), 3 cr. (3 and 0)

(B) Graduate Course Changes

WRE 875

Water Resources Planning (Change in title, credits, and course description), 3 cr. (3 and 0)

WRE 876

Water Resources Systems (Change in

credits and course description), 3 cr. (3 and 0)

IV. COLLEGE OF INDUSTRIAL MANAGEMENT & TEXTILE SCIENCE

(A) New Undergraduate Courses

Fin 306

Corporation Finance (Replaces IM 306), 3 cr. (3 and 0)

Fin 402

Capital Budgeting, 3 cr. (3 and 0)

(B) Undergraduate Course Title Change

IM 410

Directed Research in Marketing, 1 cr. (1 and 0)

(C) Undergraduate Curriculum Change

Delete Math 207, Multiple Dimension Calculus, 3 cr. (3 and 0), as a required course in the Accounting curriculum and replace it with Math 231, Mathematics of Life Insurance, 3 cr. (3 and 0).

V. COLLEGE OF LIBERAL ARTS

(A) The Dean of the University recommended that the proposal to offer French 202 and French 498 in Paris, France, during the Christmas vacation, 1974, be approved.

(B) New Undergraduate Courses

Engl 482

Special Topics, 3 cr. (3 and 0)

Fr 299

Foreign Language Drama Laboratory, 1 cr. (0 and 3)

Ger 299

Foreign Language Drama Laboratory, 1 cr. (0 and 3)

Soc 343

Sociology of Death, 3 cr. (3 and 0)

Soc 443

Sociology of Religion, 3 cr. (3 and 0)

Span 299

Foreign Language Drama Laboratory, 1 cr. (0 and 3)

VI. COLLEGE OF PHYSICAL, MATHEMATICAL
AND BIOLOGICAL SCIENCES

(A) Undergraduate Course Changes

Phys 452

Nuclear and Particle Physics (Change in title and description only), 3 cr. (3 and 0)

Zool 480

Developmental Biology (Change in credit hours only from 4 cr. (3 and 3), 3 cr. (3 and 0)

Zool 481

Developmental Biology Laboratory (This represents only splitting the laboratory away from the lecture and giving it a separate number.), 1 cr. (0 and 3)

(B) Graduate Course Changes

Phys 652

Nuclear and Particle Physics (Change in title and description only), 3 cr. (3 and 0)

Zool 680

Developmental Biology (Change in credit hours only from 4 cr. (3 and 3), 3 cr. (3 and 0)

Zool 681

Developmental Biology Laboratory (This represents only splitting the laboratory away from the lecture and giving it a separate number.), 1 cr. (0 and 3)

Action: Approved

4. Course Substitution

Statement and Recommendation: The Dean of the University recommended approval of the request of the College of Forest and Recreation Resources that Chemistry 201, General Chemistry 4 cr. (3 and 3) be substituted for Chemistry 223, Organic Chemistry 3 cr. (3 and 0) and Chemistry 227, Organic Chemistry Laboratory 1 cr. (0 and 3). This corrects the course substitution approved by the Educational Council at its meeting on October 7, 1974.

Action: Approved

E. N. Tyndall
Secretary

Graduate Council Minutes,
November 8, 1974

The Graduate Council met at 3 p.m. Friday, November 8, 1974 in the Conference Room of E-103 Martin Hall. The meeting was called to order by Dean Schwartz. Those present were: Dr. Brown, Dr. Rodgers, Professor Falk, Mr. Lauten, Mr. Lyle, Dr. Henricks, Dr. Mandel, Dr. Tanner, Dr. Smith, Dr. Gahan, Dr. Maxwell, Dr. Gauthreaux, and Dr. Edge (for Dr. Dysart).

The minutes of the October 11, 1974 meeting were approved as distributed.

Dean Schwartz reminded Council members that December 15, 1974 is the deadline for submission of new courses to be offered in the fall of 1975 as well as the 1975 summer sessions.

Dr. Brown was requested to draft a statement to be included in the new graduate catalog that enrollment in any graduate course requires permission of the instructor whether or not such is specifically stated in the course description.

The following new courses and changes were approved:

COLLEGE OF AGRICULTURAL SCIENCES

Ent 603

Field Crop Insects (Repl. Ent 601)

Ent 604

Structural, Industrial and Household Insects (Repl. Ent 658)

*Ent 601

Insect Pests of Ornamental Plants and Shade Trees (Repl. Ent 658)

Ent 669

Aquatic Insects

Hort 614

Retail Flower Business (change in credit hours)

Hort 616

Floral Design (change in credit hours)

WB 850

Marine Aquaculture

WB 852

Parasites and Diseases of Marine Animals

*Graduate Council approved this course as Entomology 605. The department submitted the course as 605 rather than 601.

COLLEGE OF ENGINEERING

- AC 810
Modeling and Control of Engineering Systems (Repl. CT 810)
- AC 811
Modern Control Theory (Repl. CT 811)
- AC 815
Nonlinear Controls (Repl. CT 815)
- AC 820
Digital Control I (Repl. CT 820)
- AC 821
Digital Control II (Repl. CT 821)
- AC 910
Adaptive and Optimal Control (Repl. CT 910)
- WRE 875
Water Resources Planning (change in title, credits and description)
- WRE 876
Water Resources Systems (change in credits and description)

COLLEGE OF PHYSICAL, MATHEMATICAL AND BIOLOGICAL SCIENCES

- Phys 652
Nuclear and Particle Physics (change in title and description)
- Zool 680
Developmental Biology (change in credit hours)
- Zool 681
Developmental Biology Laboratory

Dean Schwartz administratively approved:

COLLEGE OF EDUCATION

- InEd 638
Advanced Machining (change in credits)

COLLEGE OF ENGINEERING

- SE 685
Industrial Application of Statistics (course redesignation)

The following courses were tabled:

COLLEGE OF AGRICULTURAL SCIENCES

- CRD 611
Investment in Human and Natural Resources

CRD 612

Regional Economic Development Policy (Referred back to department for additional information)

Gen 661

Biometrical Genetics (Referred back to department for additional information)

COLLEGE OF ENGINEERING

SE 890

Special Topics in Systems Engineering (change in credits)

SE 895

Systems Engineering Seminar (Referred back to department for further clarification)

The following course was withdrawn:

COLLEGE OF EDUCATION

InEd 815

Seminar in Industrial Education (change in number of times course can be repeated - no action required by Graduate Council)

The Council adopted the following procedure for submitting requests for new courses: forms for new courses when submitted shall be accompanied by a listing of any textbooks to be used as well as a detailed syllabus. If no textbook is required, a reading list should be included.

At the request of Dean Hurst, Dean Schwartz appointed the following committee to identify and document areas of duplication in graduate course offerings and programs: Dr. Henricks, chairman, Dr. Dysart and Dr. Smith.

It was noted that several items of business on the agenda would be carried over to the next meeting.

A motion was made, seconded and passed to adjourn.

Final Enrollment in Graduate School, First Semester, 1974-75

MAJOR	PROF MAST	MA/MS	EdS	PhD	TOTAL
Agricultural Sciences:					
Non-Degree					9
Agricultural Economics	5	9		8	22
Agricultural Engineering		2		6	8
Agricultural Mechanization	2				2
Agronomy	3	5			8
Animal Physiology				14	14
Animal Science	4	7			11
Dairy Science	2	1			3
Entomology	1	16		7	24
Horticulture	4	12			16
Nutrition	7	13		7	27
Plant Pathology		1		2	3
Plant Physiology				14	14
Poultry Science		5			5
Wildlife Biology		16			16
Total Agricultural Sciences	28	87		58	182
Architecture:					
Non-Degree					12
Architecture	53				53
City and Regional Planning	27				27
Visual Studies	7				7
Total Architecture	87				99
Education:					
Non-Degree					367
Ed Adm Supr	100		22		122
Agricultural Education	23				23
Elementary Education	243				243
Industrial Education	24				24
Personnel Services	179				179
Reading	120				120
Secondary Education	87				87
Total Education	776		22		1165
Engineering:					
Non-Degree					10
Bio-Engineering		16		6	22
Ceramic Engineering	2	7			9
Chemical Engineering	8	10		10	28
Civil Engineering	10	13		5	28
Electrical Engineering	7	6		10	23
Engineering Mechanics		1		2	3
Environmental Systems Engr.	14	11		7	32
Materials Engineering		2		1	3
Mechanical Engineering	6	18		3	27
Systems Engineering		13		5	18
Water Resources Engineering	6	4		1	11
Total Engineering	53	101		50	214

MAJOR	PROF MAST	MA/MS	EdS	PhD	TOTAL
IM & TS:					
Non-Degree					2
Economics		11			11
Engineering Management				24	24
Management		14			14
Management Science				10	10
Textile and Polymer Science				10	10
Textile Chemistry		14			14
Textile Science		6			6
Total IM & TS	—	45	—	44	91
Liberal Arts:					
Non-Degree					4
English		44			44
History		10			10
Total Liberal Arts	—	54	—	—	58
Nursing:					
Nursing					1
Total Nursing	—	—	—	—	1
PM & BS:					
Non-Degree					8
Biochemistry		15		3	18
Botany		9			9
Chemical Physics				1	1
Chemistry		13		19	32
Mathematics		52		19	71
Microbiology		27			27
Physics		11		20	31
Zoology		27		9	36
Total PM & BS	—	154	—	71	233
Forestry & Recreation Resources:					
Forestry	1	10			11
Recreation & Park Administration	26				26
Total For. & Rec. Res.	27	10	—	—	37
GRAND TOTAL					
CLEMSON/FURMAN MBA	971	451	22	223	2080
					132
					2212

Minutes of the Meeting of the Faculty Senate, October 8, 1974

Call to Order and Approval of the Minutes

President Dillon called the meeting to order at 4:19 p.m. and asked for corrections or additions to the August 20 minutes. After four minor changes, the minutes were approved.

Report by Campus Master Planners, Robert Eflin and Benjamin Rook

Professor Eflin explained the meaning of a pedestrian or walking campus: It is the separation of automobiles and pedestrians as much as possible. Professor Eflin suggested that several benefits would be evident if the pedestrian campus were instituted: safety; aesthetic; sociological; health; economic. He further stated that it would tend to compact the campus by keeping the physical area smaller by the elimination of parking spaces. He maintained that the elimination of automobiles on the campus would result in better landscaping and more consideration to walkers. A question and answer session followed in which Professor Eflin clarified points presented.

Committee Reports

A. Welfare

Chairman Baron announced that the Welfare Committee is interested in cooperating with the Economics Department Faculty in the development of a program of personal finances, advice and assistance for all faculty and staff. He has circulated a questionnaire to the faculty to test the market for demand and suggestions on format. The Welfare Committee is studying the possibility of obtaining funds for a Consumer Advisor. The committee is also looking into the need for a series of seminars on finances, taxes, TSA, retirement options, etc.

The Welfare Committee was charged with the responsibility of studying the problem of the procedure that a committee should follow when electing its chairman. It was recommended that the decision be left up

either to the individuals who make up the committee or to the organization or officer to whom the committee reports. During the discussion which followed, the point was made that new members on the committee had no voice in the election of the chairman under whom they would be subsequently serving; the counter-point was made that these members will eventually have the opportunity to participate in the selection of a chairman. The recommendation stands as stated.

Chairman Baron reported that the Welfare Committee has been asked to examine the new dining hall policy whereby only students, faculty and visitors who have business with faculty members are allowed to eat in the facilities. Chairman Baron checked with ARA Slater and was sent to Mr. Henry Hill, Director of Auxiliary Enterprises, who informed him that the policy was passed in 1969 and is now being enforced. The primary reason for enforcing the policy is that the facilities become very crowded, particularly on week ends because of people coming in from the outlying area. Other problems developed such as numerous phone calls about the menu for each meal. Mr. Hill suggested that the Clemson House facilities should be utilized by townspeople et al. and that the dining hall facilities should be utilized by students, by faculty and by official visitors. Chairman Baron stated that the Welfare Committee plans to drop the issue unless there are requests for further action. In the ensuing discussion the following points were made: Faculty members and their official visitors are allowed to eat lunch at Schilleter Hall only during working hours; Senator Roberts questioned the economics of not serving meals on week-ends to outsiders; Chairman Baron had suggested that they charge outsiders more for meals.

Chairman Baron announced that a Flu Clinic would again be available for faculty, staff and their families. He reported that the Welfare Committee is looking at the Faculty Manual, putting together documents on faculty benefits, and studying the possibility of remission of fees for faculty children who attend Clemson.

B. Policy - No report

C. Research - No report

D. Admission and Scholarship

Chairman Fitch reported that his committee is diligently working on its Faculty Manual revision assignment: Qualifications, Personnel Evaluation, Appointments and Promotions. The Committee also is studying the role that the Faculty Senate should play in the selection of the President of the University. Senator Baron posed the following question - "Who will select the Presidential Search Committee?" (Secretary's Note: The Board of Trustees will appoint the search, nominating and selection committee(s). The interests of the faculty are recognized by appointing the President of the Faculty Senate as a full fledged member of the committee(s). See page 44 of Faculty Manual.)

President's Report

1. President Dillon requested that the chairmen of several Ad Hoc Committees or representatives on committees report on their activities.

a. Senator Douglass - Chairman of Ad Hoc Committee on Commencement:

The committee is looking into increased pagentry and formality at the May commencement. A survey of recent graduates and their parents is being conducted by Dean Vickery relative to the impression on those groups by the present arrangement. It is suggested that the hooding of doctoral candidates could be restored and perhaps the hour for the start of the ceremony might be changed.

b. Senator Grove - Representative on Landscape and Site Development Committee: The Committee met on Sept. 22 and took several actions. It now meets each month on a regular basis and cooperation among the Committee, the Master Planner and the Physical Plant is becoming evident. Senator Grove announced that two large magnolia trees in front of the Student Union are slated for removal.

c. Senator Holt - Tenure Policy: A questionnaire has been submitted to the

Faculty and the results will be summarized at a later date.

d. Senator Carpenter - Alternate representative on Athletic Council
Senator Carpenter reported on the Sept. 22 meeting. There was no violation in connection with the recruiting of Moses Malone. A committee will be appointed to study the need for a single set of colors for Clemson University. There are many different shades of colors being used. The question was raised - "What is orange?" The price of tickets to football games will be increased to \$8.00 next season. A copy of the minutes are available.

2. President Dillon announced that John LeBourgeois has resigned to become the assistant swimming coach and that Professor Larry McCollough of Philosophy has been elected as his replacement. He also will serve on the Admission and Scholarship Committee. Senator Recoulley has been asked to serve on the Advisory Committee.

3. The Research Committee has asked the President of the Faculty Senate to request that Clemson University be designated as the Environmental Research Center.

4. President Dillon read a letter from Haskell Moore, Dean of Faculties at Texas A&M University, praising our Faculty Manual.

5. President Dillon announced that President Edwards has appointed Senator Bookmyer to the Student Relations Committee.

6. President Dillon requested that the Policy Committee meet with Professor Spurgeon Cole, of the Ad Hoc Committee on Improvement of Undergraduate Education, to reconsider the computerization of Faculty Evaluations.

7. President Dillon reported on the Oct. 13 meeting of the Graduate Council. The wording of the residence requirement policy and guidelines and policies for admission of graduate students is being considered for inclusion in the new Graduate School Manual.

8. President Dillon announced that the Presidents, Administrative Officers and Academic Deans of Clemson and the University of South Carolina met on Sept. 26 to study ways to increase cooperation between the two institutions.

9. President Dillon reported on a meeting of the Planning Council on Sept. 19. It will become necessary to fence off certain areas around the McAdams Hall, Agricultural Administration Building and RPA complex for construction purposes. Reference was made to an article in The Tiger re. resolution before Planning Council to begin planning of a Commons Area. After discussion, the Senate indicated approval of an initiation of planning (a recommendation to study, not for action).

10. President Dillon reported on the Sept. 25 meeting of the Administration-Faculty-Students Committee. It was a formative meeting where the members discussed suggested topics for consideration this year: improved communications among AFS; improvement of attitude among AFS; the increasing numbers of students who graduate with honors; the problems inherent in Title IX of Civil Rights Act. Along these same lines, President Dillon asked that we all try to improve communications and attitudes in our relationship with students, faculty and staff. Most complaints appear to result from the lack of communication.

11. President Dillon suggested that one reason for lack of communication is that the Senate is not represented on many of the various standing committees and councils. He has discussed this with Dean Hurst, and a memorandum has been forwarded asking for representation on the following committees and/or councils: Affirmative Action Committee, Archives Committee, Audio Visual Committee, Computer Advisory Committee, Extension Council, University Research Council, Fine Arts Committee, Energy Conservation Committee, Graduate Council, Honors Program Council, Library Committee, Patent Committee, Schedule Committee, Scholarships and Awards Committee and Undergraduate Council.

12. Dean Hurst has recommended that a Faculty Manual Revision standing committee be established in the Senate. This action

will become necessary now that the manual will be revised on an annual basis. It is suggested that an annual "cutoff" date be established, revisions be made and the manual be printed in time for delivery to the faculty at the beginning of the academic year. President Dillon suggested that the Senate officers and chairpersons of the Senate Standing Committees comprise the Manual Revision Committee.

Old Business - There was none.

New Business

President Dillon recognized Senator Jacobus who introduced the following Resolution on Parking (FS-74-10-1) and moved that it be approved. The motion received a second and the following points were made during the discussion: There are students who have accumulated several tickets which are still cheap parking at \$2.00 each; a towing policy is now in effect; most offenders are chronic violators; parking problems may develop in the area of Long Hall and Sikes Hall because of a construction fence which will be installed Oct. 14. The resolution was amended to sum violations on a semester basis rather than on an annual basis. The amended resolution was approved (1 opposing vote was cast).

Adjourn - The meeting adjourned at 6:30 p.m.

Respectfully submitted,

T. R. Adkins Jr. Secretary

Senators absent: Acton and Matthews

Resolution on Parking (FS-74-10-1)

Whereas parking facilities have been provided for all University personnel, and

Whereas the number of parking spaces available to any designated group is predicated upon the number of individuals registered in that group, and

Whereas violators of parking privileges undermine attempts to provide adequate parking for all personnel, be it

Resolved that the Clemson University Traffic Code be rigorously enforced as regards parking privileges, and, be it further

Resolved that parking violators during a single semester be fined in progressive amounts, e.g., first offense, \$2; second offense, \$10; third offense, \$20; fourth offense, \$25 and loss of parking privilege.

SUPPORTING DATA

<u>Group</u>	<u>Spaces Available</u>	<u>Stickers Issued</u>
Faculty and Staff	1,984*	4,000-5,000
Resident Students	2,893	2,900
Commuter Students	1,350	2,800**

* Less 207 as of 10/14/74.

** Additional parking being made available at the present time.
(University Traffic and Parking Committee Minutes of Sept. 26, 1974)

VIOLATIONS

Over 1,000 tickets/week currently.

Second and third time offenders the rule rather than the exception.

Minutes of the Meeting of the Faculty Senate, November 12, 1974

Call to order and approval of the minutes

President Dillon called the meeting to order at 4:15 p.m. and asked for corrections or additions to the Sept. 10 minutes. After three minor corrections, the minutes were approved.

Report by University Publications Editor Beulah Cheney

Mrs. Cheney discussed the development of a visual identification system for the University as one part of an overall communications support program. The identification program utilizes the new Clemson University symbol, (C, U and flame) approved by the Board of Trustees in March 1973. The symbol was introduced through development program materials and used more recently on general University printed pieces such as Facts, Campus Guides and press kit folders. Mrs. Cheney presented a concept for using the symbol on letterheads and envelopes and showed examples of how stationery items might look. She explained that the stationery for the administrative parts of the Uni-

versity and the academic units would be different (the academic units would be identified more prominently than in the past), but consistent in the way Clemson University is identified. She also showed how a consistent identification could be carried out on various department brochures and flyers using illustrations for each of the nine colleges. She said a graphics manual will eventually be published indicating the correct ways to use the identification system. Assistance in using the new graphics is available now. She explained the function of the University Publications Office which is a part of the Public Relations Department. This office offers professional help to the faculty and staff in editing, designing and printing (from competitive bids) all types of printed materials such as brochures, flyers and catalogs. A question and answer session followed in which Mrs. Cheney clarified points presented.

Committee Reports

A. Admissions and Scholarship

Chairman Fitch presented the recommended changes in the Faculty Manual. (See Attachment 1).

Chairman Fitch referred to a letter from Dr. C. E. Littlejohn Jr., which expressed concern over the increased number of A's, the higher GPR's, and the larger numbers of students who are graduating with honor. Copies of an article, "Too many A's" from page 106 of the Nov. 11, 1974, issue of Time were distributed which succinctly pointed out that too many A's may result from pass/fail options in difficult courses, higher grades given to help students escape the draft or get into graduate school and attempts by faculty to bribe students to give faculty better evaluations. Students are finding out that they work hard to get good grades to help them get into graduate school and then find out that everybody has good grades.

B. Policy

Chairman Roberts distributed a report on the Oct. 21 meeting of the Policy Committee (See Attachment 2). He reported that the committee is still in the process of rewriting the Faculty Manual sections on Committees (pages 21-24) and Council's (pages 17-20). He requested permission to circulate to the faculty the comments that the committee received on Tenure. President Dillon announced that he plans to retype the entire revised manual and distribute it to the faculty for their perusal and written comments.

Chairman Roberts called attention to Item 5 of the report and made the following motion:

A roll call vote may be called for as a motion from the floor, seconded from the floor and that only 20 per cent of the voting Senators present voting in support of the motion are required to pass the motion.

The motion received a second; however, during the discussion the point was made that this resolution might be classified as a By-Laws amendment and that it may have to be submitted to the Faculty at their next regular meeting. The motion

and second were withdrawn and the matter was presented as information.

Chairman Roberts presented the following Resolution on the Establishment of an Advisory Committee to the Bookstore (FS-74-11-1).

Whereas the faculty has asked for the establishment of an Advisory Committee to the Bookstore and

Whereas the administration is in accord with the request, be it

Resolved that the Dean of Student Affairs and the Dean of the University be asked to establish such a committee according to the committee description attached (See Attachment 3).

A motion was made, seconded, and unanimously approved to change bookstore to University in the second line of the third paragraph. The amended resolution received a second and was approved unanimously.

Senator Baron asked if President Dillon has had an opportunity to inquire if the University would cooperate with a privately owned bookstore. President Dillon states that he will try to have an answer on this by the next meeting of the Senate.

C. Research

Chairman O'Dell reported that all but two of the Faculty Manual revisions referred to the Research Committee have been completed.

D. Welfare

Faculty salaries (9-month basis) for academic year 1974-75 were distributed to the Senate.

Chairman Baron reported that questionnaires in behalf of the Economics Department had been distributed to the faculty. Out of 200 replies 90 per cent indicated that they were interested in a short course or seminar. The department is organizing a short course through Continuing Education.

The Welfare Committee invited Banks McFadden, Director of Intramural Programs, to discuss the usage of the new field house. He reported that the facilities will be available to students, faculty and staff and probably families particularly as far as the pool is concerned. He discussed the possibility of setting up a fee system (maybe \$30 per year) to cover usage of the facilities.

E. Ad Hoc

President Dillon recognized Senator Douglass who presented the following report on Ad Hoc Committee on Commencement:

The committee suggests that the Faculty Senate recommend the following changes in the May commencement exercises:

1. The time of the commencement exercises shall be changed to 12:30 or 1:00 p.m.
2. A brief commencement address shall be given by a nationally known and interesting speaker.
3. The hooding ceremony shall be reinstated as a justifiable addition to the commencement pageantry.
4. The faculty shall be required to attend the commencement exercise on a rotating basis.
5. All persons taking part in the commencement shall conduct themselves in a dignified, decorous manner.

President Dillon suggested that clarifying statements be presented before the Senate takes action on the committee's recommendation.

President's Report

1. President Dillon asked for a volunteer to serve on the Book Store committee. Senator Bookmyer accepted the responsibility.
2. President Dillon reported on several trips that he made since the last meeting: To Benedict College in Columbia as the

representative of Clemson University at the inauguration of its new president.

To Hobcaw Barony and the Experiment Stations to confer with Faculty who are assigned to these units.

3. It was announced that the office of the Master Planner through the Dean of Student Affairs Office has been offered \$15,000 in \$5,000 increments for implementation of a bikeways program if the proposal study merits support.

4. A letter was read from the Student Union President requesting that the faculty take an active part in the Student Union.

5. A letter was acknowledged from Dr. H. Scott, Associate Professor of Bioengineering concerning the S. C. Pension Plan for State Employees. The letter is being forwarded to Dean Hurst and Admiral McDevitt for their reply.

6. A letter was read from the Student Senate concerning the Multiple Sclerosis program and which requested the support of the Faculty Senate. The Senate pledged support of these activities and instructed President Dillon to send word that is it in agreement with their objectives.

7. President Dillon reported on the Nov. 7 meeting of the Vending Machine Committee which has the responsibility of disbursing profits generated by vending machines. It is his opinion that the Faculty and staff also should receive some benefit from these funds. He pointed out that the Physical Plant staff received funds for a picnic each year; whereas, the faculty and staff have received very little. He asked that the faculty consider the possibility of having a Faculty-Staff dance which might cost \$2500 to \$3000.

8. The Senate President will attend the Board of Trustees meeting Nov. 15.

9. According to Undergraduate and Graduate Council minutes, both councils have been asked to study and identify areas of apparent course duplication.

10. The Dean of Undergraduate Studies has revised the Faculty Evaluation forms to cover librarians.

11. The Planning Council met on Oct. 15. At this meeting a model of Jordan Hall was displayed, unanimous approval was given to begin planning of the Commons Area. Manned barriers on Palmetto Blvd. were discussed.

12. President Dillon announced that the following Committees and Councils will have Faculty Senate representation:
Computer Advisory Committee - P. T. Holmes; Extension Council - F. H. Hedden; University Research Council - A. S. Tombes; Fine Arts Series Committee - K. E. Carpenter; Graduate Council - J. D. Maxwell; Honors Program Council - M. T. Slann; Library Committee - J. L. McCollough; Scholarships and Awards Committee - A. L. Recoulley; Undergraduate Council - G. C. Skelley.

13. On Oct. 8, Dean K. N. Vickery, Chairman of the Athletic Council, appointed the following committee to study the need for a single set of university colors: Professor T. D. Efland, Chairman, Dr. J. V. Reel, and Dr. Corinne Sawyer.

14. President Dillon read letters from Reginald Brantley, Student Body President, and Walter Cox, Vice President for Student Affairs, concerning the "honor system." The consensus was that cases involving academic dishonesty should not be heard in student courts as they do not, or should not, have the capacity to hear cases in which faculty members will be involved.

15. President Dillon referred to President Edwards' Oct. 11 letter to Peter E. Holmes, Director of Civil Rights, containing comments pertaining to putting into effect Title IX of the Educational Amendment. He stated that there is "...no basis for different treatment of races in athletics, but there are logical and compelling reasons for (different treatment) in the instance of sexes in athletics."

16. President Dillon formed an Ad Hoc Committee of Definition of "Relevant

Experience" as referred to on page 41 of the Faculty Manual. The committee is charged with defining as rigorously as possible the term relevant experience. The committee will consist of Senators Maxwell, Tombes and Edge.

17. President Dillon introduced Dr. George Carter Jr. and Dr. E. T. Sims Jr. who were sitting in for Senators Witcher and Ezell respectively.

Old Business

President Dillon called for old business.

The question on the status of the annual leave policy for 12-month faculty was raised. It was pointed out that numerous faculty members have accrued annual leave in excess of the 18 days presently allowed for carryover, and that they desperately need to know if they should take these days prior to Dec. 31, 1974. President Dillon will try to obtain an answer on this matter as soon as possible.

Senator Roberts, Faculty Senate representative on the Safety Committee, stated that he has requested that the Safety Committee consider the need for emergency medical facilities.

New Business

There was no new business.

Adjourn

The meeting adjourned at 6:08 p.m.

Respectfully submitted,

T. R. Adkins, Jr., Secretary

Senators absent: Carmack, Ezell, Chisman, Witcher and Goree.

REPORT OF ADMISSIONS AND SCHOLARSHIP COMMITTEE, OCTOBER 24, 1974

(Attachment 1)

With respect to its assigned task in examining sections of the current Faculty Manual, the committee recommends the following:

Page 14 Appropriate lines should be added to the diagram so that it becomes clear, for example, that the bookstore manager is responsible to someone.

Page 15 No change

Page 16 Dean of University Extension should be modified to remove references to specific extension centers. We suggest Dena Hurst be consulted for a fix on this.

Page 40 General Qualifications, no change recommended.

Page 41 Third paragraph currently reads: "For the rank of instructor, the appointee is expected, as a general rule, to have the master's degree. In employment of instructors, preference is given to those with plans to pursue the terminal degree."

The committee recommends that the second sentence be altered to read: "In employment of instructors, preference is given to those possessing or actively pursuing the terminal degree."

Last paragraph on page 41 reads: "The experience requirement may be lowered because of illustrious achievement or professional activity of regional or national recognition."

The committee recommends adding international, the last part to read: "...professional activity of regional, national or international recognition."

Page 42 The committee recommends that the first paragraph be deleted as noncommensurate with Clemson's standing as a university. Second paragraph which currently reads:

"As is implied above in the section on "General Qualifications," the qualities to be recognized through appointments and promotions, extend far beyond, and in some cases may be independent of, the possession of advanced degrees and years of experience. These important though less tangible factors can be regularly evaluated but can hardly be meaningfully enumerated on a rank-by-rank basis. The omission of such a rank-by-rank statement of policy on intangible factors is not

intended in any way, however, to minimize their importance."

Should be joined to the section on national recognition and modified to read:

"As is implied above in the section on "General Qualifications," such qualities, recognized through appointments and promotions extend far beyond, and in some cases may be independent of, the possession of advanced degrees and years of experience. These and similar intangible factors will be considered in an evaluation, but their number and complexity precludes rank by rank enumeration here."

PERSONNEL EVALUATION PROGRAM

The Committee recommends that this section read:

"In 1955, the Board of Trustees directed the implementation of a program of annual evaluation of the instructional staff in academic areas.

Under the program, the department heads complete personnel evaluation forms on all members of their staffs annually. These are reviewed by the deans of the colleges (and directors where appropriate) who, in consultation with the department heads and directors, will indicate any differences of opinion on the original ratings. Completed forms are transmitted to the office of the Dean of the University for examination."

These forms become part of a confidential personnel file kept by the Dean. The faculty member shall see and sign the form before it is transmitted to the Dean and shall retain one copy of the final form; moreover he shall have the right to examine his file upon request.

Separate forms are used for instructional staff, research staff, extension staff, and administrative staff."

PROCEDURES FOR APPOINTMENTS AND PROMOTIONS

"Recommendations for promotions, renewal of appointments, or granting of tenure shall originate with the department head. He will appoint an advisory committee, to assist him in reviewing the

qualifications of departmental personnel on an annual basis. He shall then be responsible for advising the committee of the nature and outcome of his recommendations.

Department heads shall have conferences with faculty members to discuss the professional development of individuals. These conferences will allow individuals to become aware of their strengths and weaknesses and to plan constructively their future development."

Pages 40-43 - The Committee recommends no change in this wording.

POLICY COMMITTEE REPORT TO THE FACULTY
SENATE NOVEMBER 12, 1974

(Attachment 2)

The Policy Committee met in executive session on Monday, October 21. Consideration of agenda items resulted in the following:

1. A definitive oral report was received from Professor Spurgeon N. Cole, Chairman, Student Evaluation of Faculty Teaching Committee, who wished us to reconsider our previous position on "Computerization" of evaluation reports. We recommended that further work be done on the specific mechanisms to be used for tabulating the data and for protecting the faculty. We shall review this and report to the Senate.

2. A review of the present status (10-21-74) of our rewrite of the Faculty Manual -- Councils and Committees -- shows that there are still sixteen items to complete.

3. We were asked to review the present mechanism for election of Chairmen and Chairwomen of University Committees and Councils; the present system appears adequate to provide proper leadership.

4. The statements on "Terms of appointment" and "Appointments for which tenure is attainable" were presented as ably rewritten by Professor A. H. Holt (after digesting more than two hundred written comments from the Faculty). The Policy

Committee submits these statements to the Senate with this report. We request permission of the Senate to distribute these statements to the Faculty for meaningful comment in time to incorporate any further ideas for final submission to the administration. See attached statements. (PC-74-10-1)

5. In the matter of the operating rules of order of the Senate the Policy Committee submits:

BE IT RESOLVED THAT:

"A roll call vote may be called for as a motion from the floor, seconded from the floor and that only 20 per cent of the voting Senators present voting in support of the motion are required to pass the motion."

PC-74-10-1

Proposed Changes in Faculty Manual Pages 26-31

REGULATIONS

1. Statement of Terms of Appointment

a. The terms and conditions of every appointment to the faculty will be confirmed in writing by the dean of the college and a copy of the appointment document will be supplied to the faculty member. Any subsequent extensions or modifications of an appointment, and any special understanding, or any notices incumbent upon either party to provide, will be confirmed in writing by the dean of the college and a copy will be given to the faculty member.

b. With the exception of special appointments - for example: military personnel, post doctoral research appointments, consultants, part-time appointments, lectureships, adjunct professorships, and visiting professorships (clearly limited to a brief association with the institution), and reappointments of retired faculty members on special conditions - all regular full-time appointments are to the rank of instructor or higher. The initial employment at Clemson University in any of these ranks is probationary. Tenure may be granted under the provisions of paragraph 2 below. Tenure, having been

granted, is continuous thereafter. A revocation of tenure must be treated as a dismissal under the terms of paragraph 5 below.

c. Except for faculty members who have tenure status, every person with a teaching, research, or extension appointment will be informed each year in writing of his appointment and of all matters relative to his eligibility for the acquisition of tenure. Any special standards adopted by the faculty member's department or school will also be brought to his attention immediately.

2. Appointments for Which Tenure Is Available

Probationary appointments may be for one year, or for other stated periods, subject to renewal. Faculty with the rank of assistant professor or higher and professional librarians are eligible for tenure. Time credited toward tenure shall be counted from the July nearest the first day of work. A minimum of 4 academic years of service at Clemson University is a prerequisite for tenure at any rank for those individuals not previously tenured at some other institution. Those individuals who have held tenured positions at other institutions may be tenured at Clemson University after 2 academic years of service. Previous full-time service with the rank of assistant professor or higher in other accredited institutions may be applied up to 3 years of service beyond the required minimum of 4 years at Clemson University. For those eligible for tenure, the total period of full-time service at Clemson University without tenure will not exceed 7 years. If at the end of 6 academic years, tenure has not been granted to an individual at the rank of assistant professor or higher, the individual's appointment will terminate at the end of the seventh academic year. Time spent on leave of absence will not count as service unless the individual and institution agree to the contrary at the time leave is granted.

3. Schedule for Notification of Status

Regardless of the stated term or other provisions of any appointments, written

notice that a non-tenured appointment is not to be renewed will be given to the faculty member in advance of the expiration of his appointment, as follows:

(1) Not later than March 1 of the first academic year of service, if the appointment expires at the end of that academic year; or, if a one-year appointment terminates during an academic year, at least three months in advance of its termination; (2) not later than December 15 of the second academic year of service, if the appointment expires at the end of that academic year; or, if an initial two-year appointment terminates during an academic year, at least six months in advance of its termination; (3) at least twelve months before the expiration of an appointment after two or more years of service at the institution. Clemson University will notify faculty members of the terms and conditions of their renewal by March 15; however, because the budget requires legislative approval, notification of salary may be delayed until after the General Assembly has acted.

Advisory Committee to the Bookstore
(FS-74-11-1)

(Attachment 3)

This committee consists of the Manager of the Bookstore, ex officio, one faculty member from each of three separate colleges nominated by the deans of the colleges and appointed by the Dean of the University for a term of three years; one member of the Faculty Senate from a separate college nominated by the President of the Faculty Senate and appointed by the Dean of the University in the first year of the Senator's senate tenure to serve for the period of that tenure; one member of the Student Senate nominated by that body and appointed by the Dean of Students; one member of the Graduate Student Association nominated by that body and appointed by the Dean of the University. The student members of the committee shall serve for one year. The committee shall elect its chairperson from the faculty members annually.

At the end of a faculty member's tenure on the committee new nominations shall

arise from colleges which have not had representation on the committee in the preceding three years. This is to insure that memberships rotate through all colleges of the University.

The committee advises the Manager of the Bookstore on the determination of the needs of the University, the formation of bookstore policies and other such matters as may be referred to it by the Manager of the Bookstore or the Dean of Students.

(Initial appointments of faculty shall be one for one year, one for two years and one for three years beginning with representatives nominated from the three colleges with the largest number of faculty.)

Minutes of the Scholarships and Awards Committee Meeting, November 20, 1974

The Scholarship and Awards Committee met in Room E-103 Martin Hall, Chairperson Corinne Sawyer presiding. Members absent were: A. M. Bloss, Susan H. Brown, K. N. Vickery.

The meeting opened with the acceptance of the October 16, 1974, minutes as circulated.

Marvin Carmichael presented a report on the Norris Medal including cost information and showing several sample plaques and a certificate frame. A motion was made that ten Norris Medals and four or five plaques be ordered, spending no more than \$1050. The motion passed.

Dr. Sawyer went to the next order of business, that being the utilization of money generated by the Consolidated Memorial Fund. Dr. Sawyer pointed out that the Robert N. Kersey Award Fund was placed into the Consolidated Memorial Fund by mistake. The Department of Electrical and Computer Engineering requested, by letter, that the Scholarship and Awards Committee allocate to them \$50.00 from the Consolidated Memorial Fund so they may be able to make the Robert N. Kersey Award at Honors and Awards Day in the spring, the Scholarship and Awards Committee being the only committee that

can officially draw money from the fund. A motion was made and passed that \$50.00 be drawn from the Consolidated Memorial Fund and be given to the Department of Electrical and Computer Engineering as requested. A motion was made and passed that the \$72.00 remaining in the Consolidated Memorial Fund be placed in the Scholarships for Scholars Fund for the 1974-75 academic year only, as soon as the accounting error concerning the Robert N. Kersey Award is corrected. The Committee requested a report from Col. Bloss concerning the investment of the funds in the Consolidated Memorial Fund.

As a last order of business, Dr. Sawyer made several comments concerning G.P.R. floor for students designated as being on the Dean's List. Information gathered by Dean K. N. Vickery concerning honors G.P.R.'s at other institutions was presented to the Committee. Dr. Sawyer will appoint an ad hoc committee to research the subject and make recommendations.

There being no further business, the meeting was adjourned at 5:00 p.m.

Respectfully Submitted,

Marvin G. Carmichael
Secretary

Minutes of University Audio-Visual Committee, November 5, 1974

Present: W. H. Durham, J. C. Hubbard, Jr., M. W. Jutras, P. K. Owen, Jr., R. D. Riley, Samuel Wang, Betty P. Watkins, and C. R. White.

Chairman Jutras opened the meeting with a report by R. D. Riley on the Agricultural Science's Audio-Tutorial Lab, one of three such labs currently being used within the University. The material for each lab is on either tape, film, or slides with other accompanying material. Approximately 550 students per week from nine agricultural curricula use this lab. Dr. Jutras next presented the minutes of the October 1, 1974 meeting which were corrected and approved.

Dr. Jutras reported on his trip with Mr. Durham to the University of South Carolina, Friday, Nov. 1, 1974, to visit the Learning Resources Center. USC now has 45,000 square feet of space employing 122 students part time. Our current Communications Center would accomodate only their loan center which contains over 4,000 16mm films. The possibility of Clemson's use of material from USC was discussed.

Under old business: the A-V committee decided at its inception that a subcommittee would annually review, with Mr. Durham, the services provided by the University Communications Center. This subcommittee will be appointed in the near future.

New business: Report on needs of all colleges with regards to A-V resources on campus and what the committee may do as part of its function to assist. Dr. Ashworth reported from his college (Physical, Mathematical and Biological Sciences) the desire to have in the classroom permanent placement of projection screens, overhead, slide, and movie projectors. Professor Hubbard stated that the College of Industrial Management and Textile Science has all lecture rooms equipped with overhead projectors and screens and four rooms equipped with those A-V aids suggested by Dr. Ashworth. The question was raised as to whether or not this has a departmental or college function rather than University. The question was not resolved.

Professor Wang moved that Dr. Jutras discuss with the appropriate purchasing authority the possibility of having a knowledgeable A-V person from the Communications Center advise on all purchase requisitions relative to audio-visual equipment. The motion was seconded by Professor Hubbard and was unanimously passed.

Professor Watkins moved that the University Communications Center expand its loan service and establish an equipment repair service. The motion was seconded by Professor Wang and was unanimously passed. The committee recommended that after the first initial appropriations,

Mr. Durham ascertain the practicability of the repair service becoming self-supporting in that departments would be charged for parts and labor; the departments sending A-V equipment off campus for repair at the present time must pay for these services.

Mr. Riley suggested that all old construction be modified and all new construction include "in classroom" capability of controlling lighting in order that students will be able to take notes during A-V presentations.

On Nov. 19, 1974, Dr. Jutras appointed a number of sub-committees:

1. Professor B. P. Watkins was asked to investigate the feasibility of securing grant requests from funding organizations, either public or private, for the development of audio-visual courses in unusual areas, to provide salaries, soft and hardware, similar to Dr. F. J. Keller's cooperative effort with USC whereby they are developing a physics course on video tape. Further, she is to investigate the control and allocation of these monies when available.
2. Professor Sam Wang is to arrange an audio-visual equipment and soft-ware show on campus; this is to be coordinated with Mr. Durham. An appropriate date, location, firms to be contacted, etc., are to be finalized for a possible showing sometime during the spring semester, 1974-75.
3. Professor E. L. Wall was requested to informally approach the Chairman of the University Library Committee, and determine if any areas of possible cooperation exist between the Library Committee and the A-V Committee, i.e., the Library staff catalog soft-ware holdings if a loan center is established.
4. Dr. R. P. Ashworth was requested to look into the feasibility of a grant application for funding of equipment purchases for a University audio-visual loan center.
5. A sub-committee composed of Mr. P. K. Owens, Chairman, Dr. D. D. Moyle, and Professor C. R. White, will review the

Communications Center services and make recommendations regarding the sub-committees findings to the parent committee.

6. Mr. R. D. Riley and Mr. W. H. Durham are requested to draft a resolution for the Committee's consideration regarding the expansion of the Communication Center's repair service, its mode of

financing, operation, etc., for presentation at the earliest convenient date.

Approved December 3, 1974.

Respectfully submitted,

J. C. Hubbard, Jr., Secretary

Calendar of Campus Events

- 15 -- Fine Arts Film: Smiles of a Summer Night, directed by Ingmar Bergman. Sponsored by the University Union, 8:00 p.m., Brackett Hall Auditorium, University I. D. required, admission free.
- 16 -- Fort Hill Clemson Club Tip-Off Luncheon, 12:00 Noon, Clemson House.
- 16 -- Poultry Science Seminar: "Poultry and Egg Production in Indonesia, A Case Study in Transfer of Technology," Dr. H. R. Bird, University of Wisconsin, 12:20 p.m., C127 P & AS Building, open to all interested persons.
- 16 -- Nutrition Seminar: "Can Tropical Nations Feed Themselves?" with Dr. H. R. Bird, University of Wisconsin, 4:00 p.m., A101 P & AS Building, open to all interested persons.
- 17 -- Divided We Stand, an improvisational three man comedy act, sponsored by the University Union. 8:00 p.m., Daniel Hall Auditorium, open to the public, admission \$1.
- 18 -- Basketball: Wake Forest, 8:00 p.m., Littlejohn Coliseum.
- 18 -- Graduate Record Examination, 8:30 a.m., M101 Martin Hall.
- 20 -- French Films: The Lesson and Zero for Conduct, sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 21 -- History Film: Sergei Eisenstein's October, sponsored by the History Club. 2:30 and 7:30 p.m., 200 Hardin Hall, discussion led by Mr. J. W. Barnhill, open to the public, admission free.
- 22 -- Basketball: Maryland, 8:00 p.m., Littlejohn Coliseum.
- 24 -- Clemson University Concert Series: Atlanta Symphony Orchestra, 8:00 p.m., Littlejohn Coliseum, admission by student activity card, season ticket, or individual tickets on sale at the gate.
- 27 -- German Film: Man Who Walked Through the Wall, sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.

- 27 -- The National Players in Shakespeare's Henry IV, Part I, sponsored by the Fine Arts Committee and the English Department. 3:30 and 8:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 28 -- French Film: Fictimes Du Devior, presented by French students, 8:00 p.m., Daniel Hall Auditorium, open to interested persons, admission free.
- 29 -- Basketball: The Citadel, 8:00 p.m., Littlejohn Coliseum.
- 31 -- Chamber Music Series: a solo vocal performance featuring baritone Clyde Barth and oboeist Ruth Mock, accompanied by pianists Linda Barlage and Mary Alice Edmunds, sponsored by the Music Department. 8:00 p.m., Daniel Hall Auditorium, open to the public, admission free.

WEPR Highlights

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI 89.3-FM, Charleston.

- 15 -- The Entertainer: Scott Joplin and The Ragtime Era, with Alan Schaffer, head Clemson History Dept., 8:00 p.m.
- 15,18 Political Science: (15,18) Drug Regulation with sociologist Prof. Bill Cappel, 22,25 (22,25) The Watergate Trial - Justice in America with political science Prof. Horace Flemming, (29) The New Congress with Dr. Charles Dunn, hosted by Dr. Ed Coulter, political Science Department. Wednesdays at 11:00 a.m., Saturdays at 6:30 p.m.
- 15,18 Word-Go-Round: (15,18) Words from Classical Myths, (22,25,29) Words from Louis B. Wright's Barefoot in Arcadia, hosted by Herman and Mary Felder. Wednesdays at 11:30 a.m., Saturdays at 6:45 p.m.
- 17,18 Majors and Minors: (17) The Problem of Reputation (18) Janacek Comes to the Met, (24) Winter Music, (25) Epiphany and After, (31) A Winter Journey, hosted by Dr. Ray Barfield, Clemson English Department. Fridays at 2:00 p.m., Saturdays at 10:30 p.m.
- 16,23 Poetry Today: (16) Nikki Giovanni and Other Black Poets, (23) Adrienne Rich, (30) Poetry in the Schools with Dale Alan Bailes, hosted by Dr. Robert W. Hill, Clemson English Department. Thursdays at 12:00 Noon and 7:45 p.m.
- 17,24 Food for Thought: (17) Table Settings Unlimited with Julia Taylor, (24) Vitamin E with Rose Davis, (31) World Food Situation with Rose Davis, hosted by Marie Hindman, Clemson Prof. of Home Economics, and Nutrition. Fridays at 12:00 Noon and 7:45 p.m.
- Daily Carolina Weathervane: from Clemson Extension Service, S. C. Experiment Station and National Weather Service, featuring agricultural news, weather, recommendations and county reports, 12:15 p.m.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

Vol. 14 No. 11

February 1, 1975

1975 Alumni Distinguished Service Awards Announced

JAN 29 1975

The Clemson University Alumni Association has announced the selection of five men to receive the 1975 Alumni Distinguished Service Awards, the association's highest honor.

Chosen by the Clemson Alumni National Council from nominations made by alumni are:

Robert E. Marvin ('42), Walterboro landscape architect; Romaine Smith ('33) of Birmingham, Ala., veteran agricultural magazine writer; Thomas E. Thornhill ('48) of Charleston, business executive and real estate developer; Robert H. Yeargin ('49), Greenville construction executive; and J. Givens Young ('42), well-known Florence agri-business leader.

The awards will be formally presented to the five South Carolina natives during annual alumni reunion weekend in June.

Alumni Distinguished Service Awards recognize Clemson alumni whose "personal life, professional achievements, community service, and loyalty to Clemson best exemplify the objectives of Clemson University."

Dr. Burley to Join Staff of Student Health Service

Dr. Robert H. Burley, a practicing physician in Clemson, is leaving private practice to join the staff of the Student Health Service at Clemson effective March 1.

His appointment is announced by Dr. Judson E. Hair, director of the health service. Burley will replace Dr. John H. Swicord who is going into private practice in Moncks Corner.

Burley said the increasing demands and pressures which private practice has placed upon him and his family in recent years are the reasons for his decision.

"We are most fortunate that Dr. Burley has chosen to remain in Clemson and join the medical staff at Redfern Health Center," said Hair. "Acquiring a doctor with his medical knowledge and professional experience will greatly strengthen the varied health care services provided to our students."

The Center presently has four staff physicians, including Hair, to handle the large volume of student patients treated at the facility. He said that a need for additional doctors at the Center has existed for the past several years because of the tremendous growth in student enrollment.

Hair noted that in the 1973-74 school year, the Student Health Service recorded 41,607 out-patient visits and 870 hospital admissions.

A Clemson native, Burley has been engaged in the private practice of general and family medicine in his home town for the past 22 years. He attended Clemson University and Vanderbilt University where he received his B.A. degree in 1948.

Burley earned his medical degree in 1952 at the Medical University of South Carolina. He is a charter diplomat and Fellow of the American Board of Family Practice (1971), and received the American Medical Association's Physicians Recognition Award in 1973.

Burley holds membership in various professional associations, including the Anderson County Medical Society, S. C. State Medical Association, American Medical Association, the Southern Medical Association, and the S. C. Academy of

Family Practice of which he is a past president.

Burley is active in community and church activities, having been a ruling elder since 1964 at Fort Hill Presbyterian Church and a former deacon. He is a charter member and past president of Clemson Rotary Club, and was recipient of a Distinguished Service Award from Clemson Jaycees in 1961.



COMPUTERIZED HISTORY — Jerome V. Reel, left, Libby Jones and Robert S. Lambert look over a computer printout on medieval Englishmen from Clemson's Computer Center.

Clemson Historians Use Computers to Aid Research

Stored in a computer on the Clemson campus are facts about the birth, occupation, military service, offices held and property ownership of thousands of people.

Two professors analyze this data, trying to determine what factors influenced the individuals' political leanings.

Shades of 1984, you say?

No, the professors are historians, and the people represented on the computer printouts lived in periods closer to 1284 or 1784.

Jerome V. Reel, associate professor of history, uses the computer in research on medieval English history biographies and in teaching advanced seminars. Robert S. Lambert, professor of history, uses it in his study of the Revolutionary period in South Carolina.

Reel says using the computer for retrieval of raw data in British history generates enthusiasm and a sense of direction among his students. He sees the seminar as serving three purposes: giving an idea of the sweep of British history in the medieval period, focusing on a single era facing a major problem, and allowing the opportunity to perform primary research at a basic level.

His students attempt to compose biographies based on official records. Information on each character is placed on a computer card so that the computer can be used to find the similarities and dissimilarities among the individuals.

Reel has completed a project called "An Index to Biographies of Englishmen, 1000-1485, Found in Dissertations and Theses." It is scheduled for publication next June by the Greenwood (Conn.) Press. It will be printed on a computer and photo-duplicated.

The medieval historian examined about 300 dissertations and theses in history, law, literature, political science, religion, philosophy and art published between 1930 and 1970 in the United States, Great Britain and Canada. He found 176 of them useful.

They ranged from "enormous studies of kings and bishops to group studies of peasants." Reel's index contains about 4,700 individual biographies. Because it includes people of all classes, instead of just the elite, he calls it "a view from the ground rather than the top of the horse."

It contains brief summaries of biographical facts and references to the sources of information. Reel believes it will be helpful to medieval historians, genealogists and other students of the humanities.

Reel now is studying the Boroughbridge Revolt of 1322. He wants to compare non-participants and members of the two factions to determine which issues were significant. The revolt was basically over the way King Edward II distributed lands and favors. It ended with the capture of many leaders at Boroughbridge.

Lambert's research topic is "South Carolina Loyalists in the American Revolution." He says, "the basic idea is that you can't understand how people became loyalists unless you go to the individual and get information of all kinds and draw conclusions." He is delving into the biographies of people who committed acts of loyalty to the king.

Lambert thinks he "may discover some relationship through the machine that I couldn't find in my lifetime in plowing through these notes."

Like Reel, Lambert began using the computer because of the difficulty of sorting 4,000 to 5,000 cards by hand.

Systems analyst Elizabeth P. Jones, who prepared programs for Reel's data, says, "The beauty of it is that the cards can be sorted in any sequence. This makes it easy to sort and select for trends and patterns you might miss manually."

Reel is "fascinated with the computer's capabilities. It's a way for historians to deal with whole groups instead of samples."

Jones notes that "any statistical study is subject to the fact that you can't study everybody." But she points out that "with a larger sample you get more reliable figures."

Despite its usefulness, the computer doesn't get the last word. The historian must make a series of value judgments, Reel says. Jones puts it this way: "You must balance your findings with common sense."

College of Engineering Receives NASA Surplus Equipment

Nearly \$2 million worth of equipment that once helped put men into space has found its way from the Marshall Space Flight Center in Huntsville, Ala., to Clemson.

This surplus equipment, bought under a National Science Foundation grant, will be used primarily for teaching and research programs in the College of Engineering.

Some of the equipment will be used to calibrate equipment the University already has, and some of it will go to Clemson's engineering technology lab.

Among the items are an eight-channel, strip chart recorder with eight amplifiers. This will be used in animal surgery for bioengineering research. It will enable a veterinarian operating on an animal to monitor a much wider variety of physiological responses than presently possible. The University also received a LaBlonde lathe to be used in teaching undergraduates. It is valued at \$20,000 and does high precision metal work.

Clemson Professors Members of "Partners of America" Team

A team of visiting South Carolinians home from South American believe that the United States can learn from developing nations as well as lend them a hand.

Clemson Nutritionist Marie Hindman and Horticulturist Dan O. Ezell were part of a five-member "Partners of America" team which included Aracelis Shaw, chairman of Romance languages at Columbia College; Steven Shaw, professor of marketing at the University of South Carolina; and David Smalley of the South Carolina Educational Television network. They were guests of the Development Board of Cali, a city of 750,000 people located in the center of the Cauca Valley in southern Colombia.

The aim of the "Partners" program, developed as the private sector portion of the Alliance for Progress, is to foster links between developing nations and strong agricultural research and cultural centers in the industrialized nations.

The eight-day visit left the South Carolina team with a number of vivid impressions. Not the least of these was the breathtaking beauty of the Cauca Valley, which lies surrounded by tall mountain ranges.

Ezell points out that the valley is both rural and urban. Much of the rural population has migrated to the city where unemployment has reached 40 per cent.

"The result, of course," he says, "is extreme poverty, malnutrition and growing health problems. In fact, the Colombians we met seemed to put health care at the top of their list of priorities for the future."

Neither Ezell nor Hindman agrees with the Colombian assessment. They feel that food production, especially high protein foods, and education needs rank just as high as health care.

Hindman and Ezell found a surprising number of private enterprise institutions and volunteer organizations performing tasks that are traditionally governmentally sponsored in the United States.

"The people have a caring spirit," says Hindman. "The well-off seem to accept the responsibility for providing services such as health and family planning centers and care for the retarded and blind. The number of volunteers is really gratifying."

On the agricultural front, she said the Colombian Institute of Agriculture, can be compared to Clemson's Extension Service and the S. C. Experiment Station, on a very limited scale.

"Of all we saw in Colombia, I think we were most impressed by the human resource," she said. "We can learn from the dedication of citizen leaders who are trying to build a better future for their people."

"We hope that our 'Partners' counterpart team in Cali will be able to visit us here and allow us to share some of Clemson's expertise in extension and research programs. After all, Extension means 'reaching out' to others."

Agricultural Economics and Rural Sociology

C. Stassen Thompson (Asst Prof) is co-author of a paper, "Product Complementarity in Production: The By-Product Case," which was published in the December 1974 issue of Southern Journal of Agricultural Economics.

Chemical Engineering

F. C. Alley (Prof) served as co-chairman of the 10th Annual Air and Water Pollution Control Seminar held at Clemson Dec. 5-6.

Prof. Alley also presented a paper, "New Developments in Air Pollution Control Technology," at the 1974 Association of Environmental Engineering Professors in Charleston Dec. 19.

Chemistry

Joe F. Allen (Assoc Prof) presented an invited paper, "Evaluation of Learning Activity Packages," at the 1974 Association of Environmental Engineering Professors' Workshop on Environmental Impact and Linkages Dec. 20 in Charleston.

Civil Engineering

Subhash C. Anand (Assoc Prof) has been elected vice president of the Northwest Branch of the South Carolina Section of the American Society of Civil Engineers for 1975.

Prof. Anand published discussions of two papers, "Concrete Pipe Culvert Behavior--Parts 1 and 2," by R. E. Davis, A. E. Bacher and J. C. Obermuller which appeared in the Journal of the Structural Division ASCE, Vol. 101, ST1, January 1975, pp. 349-353.

Parviz F. Rad (Asst Prof) has been appointed chairman of the paper selection committee for the IAHS International Symposium '76 sponsored by Clemson and the International Association for Housing Science.

Prof. Rad participated in the semi-annual Sea Grant seminar in Columbia Dec. 9.

Prof. Rad also attended the ASTM committee meeting in Atlanta Dec. 10-11 and presented a paper, "A Simple Technique for Determining Strength of Aggregates," in the ASTM symposium on graded aggregate bases and base materials.

Billy L. Edge (Assoc Prof) was elected vice chairman of the Shoreline Erosion Advisory Panel Dec. 4. The 15-man panel consists of experts in geography, zoology and economics, as well as engineering and planning. Members represent the Atlantic and Pacific coasts, the Gulf coast and the Great Lakes area. The panel was established recently by LTG W. C. Gribble Jr., Chief of the Army Corps of Engineers, to advise him on carrying out the provisions of the Shoreline Erosion Control Demonstration Act of 1974.

Donald B. Stafford (Assoc Prof) has been elected secretary-treasurer of the South Carolina Division, Institute of Traffic Engineers.

J. Edwin Clark (Assoc Prof), Prof Stafford, Freddy L. Roberts (Assoc Prof), Joseph P. Rostron (Prof) and Herbert W. Busching (Assoc Prof and Hd) attended the annual meeting of the Transportation Research Board in Washington, D. C., Jan 13-15.

College of Architecture

Tom Turner (Asst Prof) was an exhibitor in the Marietta College Crafts National Juried Competition during November 1974. His work was also shown in several exhibits during December 1974, including the American Crafts Council Gallery, New York; the Fair Tree Gallery, New York; and the Gallery of Contemporary Art, Winston-Salem, N. C. Prof. Turner received an Award of Merit and a South Carolina Arts Commission Purchase Award during the annual Guild of South Carolina Artists show in Florence, S. C., at the Florence Museum. His work is currently being shown in the South Carolina Arts Commission Invitational Exhibit held in the College of Architecture's Rudolph Lee Gallery Jan. 13 - Feb. 9.

Donald L. Collins (Assoc Prof) represented the College of Architecture at the annual Southeastern Regional Conference of the Association of Collegiate Schools of Architecture at the University of Miami in Coral Gables, Fla., Nov. 10-12. Jorge Morales (Asst Prof) and Dean Vollendorf (Instr) also attended the conference along

with nine students from the architectural program. They visited prominent architectural firms and toured buildings and residences of distinctive architectural design.

John T. Acorn (Assoc Prof) received an award for sculpture in the 41st Annual Southeastern Competitive Painting and Sculpture Exhibition at the Southeastern Center for Contemporary Art, Winston-Salem, N. C. Mr. Acorn was a participant in the Springs Mills Arts Show in Lancaster Oct. 18 - Nov. 17. He received Purchase and Merit Awards for the work he showed in the 41st Southeastern Juried Competition in Winston-Salem Nov. 8-29.

Robert Hunter (Prof), Ireland Regnier (Assoc Prof) and Tom Dimond (Coord of Educational and Media Resources) were among the architectural faculty who showed their work in the Springs Mills Art Show held in Lancaster Oct. 18 - Nov. 17. They were also participants in the 11th Annual Piedmont Graphics show at the Greenville County Museum of Art Nov. 3 - Dec. 8.

Sam Wang (Assoc Prof) participated with Thomas McPeak (Assoc Prof and Hd, Dept of History and Visual Studies) in the 24th Guild of South Carolina Artists Exhibit held recently in Florence. Prof. McPeak was the recipient of the Merit Award for his presentation.

Electrical and Computer Engineering

Poloron Homes of Pennsylvania, Inc. donated a \$7,000 mobile home to the Systems Engineering Group to be used in the mobile solar laboratory project. James A. Chisman (Assoc Prof) designed and solicited this gift.

English

Sterling Eisiminger (Instr) spoke Jan. 9 at Anderson College to the Anderson Writer's Guild on "The Poetic Process."

Environmental Systems Engineering

J. F. Andrews (Prof) has been appointed American editor for Water Research, the

official monthly publication of the International Association on Water Pollution Research. The American editor is responsible for papers submitted for publication from the United States, Canada, Mexico and South America.

Prof. Andrews, H. O. Buhr (Visit Assoc Prof, Dept of Chem Engr, Univ of Cape Town, South Africa) and M. K. Stenstrom (PhD Cand) presented a paper, "Control Systems for the Reduction of Effluent Variability from the Activated Sludge Process," at the International Conference on Effluent Variability from Wastewater Treatment Processes and Its Control at New Orleans, La. Dec. 2. The Conference was sponsored by the International Association on Water Pollution Research, Tulane University and Vanderbilt University.

John H. Austin (Prof and Hd) presented a paper, "Development of Learning Activity Packages," at the seminar on Environmental Impact and Linkages sponsored by the Association of Environmental Engineering Professors in Charleston Dec. 20.

T. M. Keinath (Assoc Prof) presented an invited lecture, "Statistical Aspects of Pollution Control," at an institute sponsored by the University of Wisconsin (Madison) Jan. 7-8. Prof. Keinath was also elected to the Board of Directors of the Association of Environmental Engineering Professors for a three-year term.

Food Science

V. A. Paynter (Grad Res Asst) and J. J. Jen (Assoc Prof) published "Pectic enzymes in ripening peaches infected with Monilinia fructicola" in the J. Food Science 39, 1195-1199.

M. G. Johnson (Asst Prof) was an invited participant in the third annual Food Microbiology Research Conference at the University of Illinois Dec. 17-20.

E. R. Buckner (Grad Res Asst) and Prof. Johnson presented a paper, "Lactic fermentation of peanut emulsions," at the fall meeting of the South Carolina Branch, American Society for Microbiology at Rock Hill Nov. 8.

Prof. Jen attended the annual technical committee meeting of the Northeast regional project NEM-27 at Rutgers University Dec. 16-18 and presented talks on "Pigments in Ripening Tomatoes" and "Some Changes in Ripening Peaches."

D. M. Hendricks (Assoc Prof) attended a symposium sponsored by F&DA entitled "The Relationship Between Exogenous Estrogens and Carcinogenesis" in Little Rock, Ark., at the National Center for Toxicological Research. He presented a paper, "Exogenous Estrogens in Blood Plasma and Edible Tissues of Domestic Animals."

Geology

"Progress Report on a Geological Study in Anderson County, South Carolina" by Villard S. Griffin Jr. (Assoc Prof) presents current interpretation of data obtained from an ongoing mapping study in a major part of Anderson County and provides an interim discussion of Inner Piedmont rock distribution across the county. The report is published by Geologic Notes, v. 18, n. 1.

History

Roger P. Leemhuis (Asst Prof) reviewed Robert M. Burts, Richard Irvine Manning and the Progressive Movement in South Carolina, in the Georgia Historical Quarterly, vol. LVIII (Winter 1974), pp. 467-468.

Horticulture

A. R. Mazur (Asst Prof) published an article, "Simple Method for Growth of Small Plants in Nutrient-Sand Culture," in Agronomy Journal, Volume 66, 1974.

Languages

Gaston J. Fernandez (Assoc Prof) presided at the Nov. 22 Second Session of the Symposium Pablo Nerudo at the University of South Carolina.

Mathematical Sciences

Renu Lasker (Assoc Prof) published a paper, "Finite Nets of Dimension Three 1," in the Journal of Algebra, Vol. 32 (1974).

Mechanical Engineering

Marvin Dixon (Assoc Prof) published a paper, "The Cam-Link Mechanism for Structural Error-Free Path and Function Generation," in Mechanism and Machine Theory, Vol. 9, 1974, pp. 367-384. The paper was co-authored by C. O. Huey Jr. (former Grad Stu).

Physics and Astronomy

The National Science Foundation has awarded the Department of Physics and Astronomy \$33,245 for support of "Physics Implementation Project for High School Physics Teachers." The project involves two graduate physics courses to be taken by 30 teachers from South Carolina, North Carolina and Georgia June 9 - August 1, 1975. Fred J. Keller (Assoc Prof) is the project director and W. Edward Gettys (Prof) and Randy Mahaffey (Spartanburg High School) are course instructors.

"Ionic Conductivity and Self-diffusion of CL in NH_4Cl " by J. D. Heneisen (former Grad Stu) and A. L. Lastar (Assoc Prof) was published in Physics Letters, 49A, pp. 369-370, October 1974.

The following papers were presented at the SESAPS meeting held in Atlanta Dec. 5-7:

P. B. Burt (Prof), "Solitary Waves in Self-Interacting Quantum Field Theories."

Mesgun Sebhathu (Grad Stu) and P. B. Burt, "Application of Self-Interacting Quantum Fields to Fermion Anti-fermion Scattering."

John Tompkins (Grad Stu) and J. R. Manson (Assoc Prof), "Multiple Phonon Surface Scattering of Atoms and Molecules."

Fred J. Keller, "Possible Isotope Effect on Frenkel Defect Production in Ionic Crystals."

W. Edward Gettys and H. W. Graben (Prof), "Quantum Solution of the Bi-harmonic Oscillator."

Max G. Miller (Assoc Prof) and R. L. Chaplin (Prof), "Decay Schemes for I_D Recovery of fcc Crystals."

Dave Glocker (Grad Stu), J. W. Cook Jr. (Res Asst), M. J. Skove (Prof), "Field Effect and Single Crystals of Bismuth."

R. L. Chaplin, K. Sonnenberg, Kerforschungsanlage, Julich; and R. R. Coltman Jr. (Oak Ridge National Lab), "Defect Production and Recovery in Electron-Irradiated V at Low Temperatures."

Political Science

Harold E. Albert (Assoc Prof) has been selected a participant in the 1974-75 Public Policy Analysis Institute sponsored by the American Association for the Advancement of Science and the National Science Foundation.

Prof. Albert has also been asked to organize a panel on "Energy vs. Environment" for the national conference of the American Society for Public Administration meeting in Chicago April 1-4.

Edwin M. Coulter (Assoc Prof) reviewed Latin America and the United States, edited by Julio Cotler and Richard Fagen, in the current issue of the South Eastern Latin Americanist.

Charles W. Dunn (Assoc Prof and Hd) lectured at the University of North Carolina at Chapel Hill on "Pardoning Power: A Political Scientist's Last Lecture."

Prof. Dunn has been selected as Public Information Officer for the American Society for Public Administration South Carolina Chapter.

Prof. Dunn is also serving as an editorial referee for the American Politics Quarterly. Martin Slann (Asst Prof) presented a paper, "Barbados and the Union of Arab Emirates: A Comparative Analysis of Political Development," at the

Carribean Studies Association annual meeting in San Juan, Puerto Rico, during January.

Jack E. Tuttle (Assoc Prof) is serving on a committee of the Southern Political Science Association to study the political science curriculum in the less-than-the-four-year college. He was selected to represent the colleges and universities of South Carolina on the committee.

Prof. Tuttle was guest lecturer Jan. 7 at the Greenville Leadership Seminar sponsored by the Greenville Chamber of Commerce under the auspices of the South Carolina Commission for the Humanities.

Minutes of the Administration-Faculty-Student Council Meeting, December 3, 1974

Chairman Robert Merrill called the regular meeting of the Clemson University Administration-Faculty-Student Council to order at 4:10 p.m. in the Board Room of Sikes Hall.

The following were present in addition to Chairman Merrill: Frank Qualls, Thomas Skelton Jr., Ronald Dillon, Kenneth Carpenter, Lewis Fitch, E. H. McCarter, M. N. Lomax, J. B. McDevitt and George Moore, Secretary.

ACTION:

There being no corrections to the minutes of the meeting of November 19, 1974, the Council approved the text of the minutes as distributed thus authorizing their publication.

At their meeting on Wednesday, November 27, the Executive Officers approved AFSC's proposal that it undertake a thorough review of existing University policies for the purpose of recommending continuance, rescissions and the recommending of additional policies which, in the Council's opinion, are needed.

Admiral McDevitt distributed a partial compilation of policies to Council members (Those which time permitted having copies prepared for this meeting). The remaining material will be distributed to the Council as it is prepared.

Chairman Merrill joined with Admiral McDevitt in suggesting that Councilmen study the material distributed, along with the Faculty Manual and Student Handbook, and be prepared to enter into discussion at the next meeting. Several Councilmen suggested that any "unwritten policies" they feel exist should be noted for discussion when this topic is continued. Several examples of these were discussed informally.

As a matter of information, Chairman Merrill called the Councilmen's attention to a recent report in The Tiger that may or may not become a subject for this Council in the future.

The Tiger, November 22, 1974 - "Another issue which was considered this semester in Student Government was the possible changes in the classroom honor system," commented Brantley (Student Body President Reginald Brantley). "After a limited poll of other students, the consensus among the group was that alleged cheating or classroom dishonesty should be resolved by a tri-level committee (student-faculty-administration) rather than through the student judiciary. Such a committee might be a restructured Student Relations Committee, or an Administration-Faculty-Student Council."

The recently enacted "Buckley Amendment" on student file access was the subject of some comments and discussion.

The next meeting of AFSC was scheduled for January 7, 1975, at 4:00 p.m. in the Sikes Hall Board Room. The call to adjourn came at 5:20 p.m.

George Moore
Secretary

Minutes of the Faculty Senate Meeting, December 12, 1974

I. Call to order and approval of the minutes

President Dillon called the meeting to order at 4:19 p.m. in Olin Hall Auditorium and asked for corrections or additions to

the Oct. 8 and Nov. 12 minutes. After minor corrections were made, both sets of minutes were approved.

II. Committee Reports

A. Admissions and Scholarship

Chairman Fitch reported that his committee met with Dean Deloney, Dean Coakley and several representatives of the student senate to discuss the cheating policy, FS 73-6-4, which has been approved by the Faculty Senate. The consensus was that the Faculty-Student Relations Committee would make a better fact finding board in cases of cheating than the student court.

B. Welfare

Chairman Baron urged the faculty to join the S. C. State Employees Association. He reminded the faculty that this association does represent us and that it could use our support. Senator Ezell requested that Mr. Luke Hamilton, our SCSEA representative, be invited to talk to the Senate.

A discussion ensued on the Extension Senate, and Senator Holleman agreed to prepare a report on its functions.

C. Research

No report.

D. Policy

Chairman Roberts reported that the Policy Committee is working on the assignment involving the rotation of department heads.

He recommended that the Faculty Senate Welfare Committee form a joint ad hoc committee with the University Safety and Fire Prevention Committee to re-open and truly assess the necessity for and the impact of improved emergency and ambulance service. He also requested a report of the relationship of the University family with the Redfern Health Center.

E. Other Reports

President Dillon announced that the Senate now has representation on every standing

committee and council in the University. Each representative should report action of interest to the Senate or should convey Senate wishes to his or her respective committee or council.

Senator Hedden, representative on the Clemson University Extension Council, reported that Dean Sam Willis is the presiding officer. At the last meeting the council discussed the awarding of continuing education units for courses taken in high school or vocational schools. The council also is studying duplication of effort throughout the University. The Continuing Education Center is still in the planning stage.

Senator Russell announced that there will be a show of audio-visual equipment at the Clemson House in the near future. He suggested that the faculty consider the possibility of obtaining some specialized equipment placed in a loan center.

III. President's Report

A. The revised Tenure Policy as submitted by Senator Holt was presented for Senate consideration (see Attachment A). It was suggested that a statement be included on the status of visiting professors and lecturers, and that the rank of lecturer be clarified. There was a conflict of opinion on whether the four years of service at Clemson should be consecutive or non-consecutive. (A show of hands revealed 13 pro and 13 con.) After further discussion, it was decided that the statement should be presented for faculty and administration consideration as follows: "A minimum of four (non) consecutive academic years of full time service...."

B. Senator Roberts was recognized. He referred to pages two and 10 of the November 12, 1974, Faculty Senate Minutes and made the following motion:

A roll call vote may be called for as a motion from the floor and that only 20 per cent of the voting Senators present voting in support of the motion are required to pass the motion.

The motion received a second, and during the discussion it was brought out that this change could be made as a procedural

addendum rather than a By-Laws amendment. The resolution was approved unanimously.

C. The membership on the Bookstore Committee was corrected. Senator Bookmyer's college was already represented; therefore, she was replaced by Senator Chisman whose college was not represented.

D. The following comments are offered in answer to a previous inquiry about the operation of a private bookstore.

1. The University feels that it must operate a bookstore for students.

2. The University certainly would not be antagonistic to a private bookstore.

3. Cooperation of the University would depend upon who the operators are and the type of cooperation required.

4. It was suggested that the interested individual(s) contact Dean Walter Cox for further clarification.

E. Initial indications are that President Edwards will support the hooding of doctoral candidates. It was suggested that the dean of the Graduate School do the hooding. Past experience has shown that time and speaker arrangements are much more satisfactory as presently arranged (See FS minutes, Nov. 12, 1974, page 3, item III-E).

F. As of Jan. 1, 1975, the name of the College of Physical, Mathematical and Biological Sciences will be changed to the College of Sciences.

G. An interim reply to the letter written by Prof. H. Scott re questions on retirement has been received. A meeting will be arranged between Adm. McDevitt, Dean Hurst, and the president of the Senate to discuss the situation relative to the South Carolina Pension Plan as outlined in Prof. Scott's letter (See FS minutes, Nov. 12, 1974, page 4, item IV-5).

H. The secretary of the Faculty Senate has been asked to act as secretary at the faculty meeting Dec. 16.

I. In the Student Senate minutes of Nov. 26, 1974, the announcement was made that R-74-75-15 "Exam Policy Reviewed and Revised" was passed. This allows seniors who are candidates for graduation and who have a minimum of a "B" average in a course to exempt the final examination at the discretion of the professor. The matter was referred to the Admissions and Scholarship Committee.

J. The typing of the revised Faculty Manual will be completed in December for distribution to the Senate in early January. Three meetings are scheduled in January to discuss the revisions: 14th, 21st and 28th.

K. Mr. Jim Strom will be invited to address the Senate in January to discuss gifts, restricted gifts and gift distribution.

L. President Dillon read a letter from Senator Roberts to Dr. J. N. Beard Jr., chairman of the University Safety and Fire Prevention Committee. The letter was referred to the Welfare Committee.

IV. Old Business

In answer to questions on the status of the 12-month annual leave policy, President Dillon stated that President Edwards will probably discuss this at the next faculty meeting.

There was no other old business.

V. New Business

There was none.

VI. Adjournment

The meeting adjourned at 6 p.m.

Respectfully submitted,

T. R. Adkins Jr.
Secretary

Senators absent: O'Dell, Acton, Maxwell, Matthews, Powers, Douglass and Tombes.

ATTACHMENT A TENURE POLICY

APPOINTMENTS FOR WHICH TENURE IS AVAILABLE

All untenured appointments are probationary appointments. Probationary appointments may be for one year, or for other stated periods, subject to renewal. Faculty with the rank of assistant professor or higher and professional librarians are eligible for tenure. (Instructors previously tenured at Clemson will retain tenure.)

CONDITIONS AND REQUIREMENTS PERTAINING TO TENURE

Time credited toward tenure shall be counted from July 1 nearest the first day of full time work. A minimum of four (non) consecutive academic years of full time service (including a maximum of two years spent as an instructor) at Clemson University is a prerequisite for tenure at any professorial rank for those individuals who have not been tenured at some other accredited institution. Those individuals who were tenured (except as a tenured instructor) at other institutions may be tenured at Clemson University after two academic years of service. For those eligible for tenure, the total period of full time academic service at Clemson University without tenure will not exceed seven years. If during the sixth academic year tenure has not been granted to an individual at the rank of assistant professor or higher, the individual will be notified on March 15 of that year that he (she) will either be tenured or terminated at the end of the seventh academic year. Time spent on leave of absence will not count as service unless the individual and the institution agree to the contrary at the time leave is granted.

ADDENDUM

Text of letter dated Nov. 15, 1974, from Dean K. N. Vickery to Faculty Senate President Dillon:

"The preliminary grade cards which were sent last month to the faculty were not alphabetized within sections. This situation, the first such occurrence since

we began using this reporting system in 1948, was unfortunate and we regret the inconvenience to faculty members.

"During the past few months, sorting space on the computer has been very critical. When this job was run in the Computer Center during the late shift, the necessary sort did not occur due to the lack of sorting space, but unfortunately the other production steps were completed. Not only were sections not alphabetized but neither were the header cards with the faculty members names placed with the appropriate sections. These cards were placed by hand with the sections in order that the cards could be distributed. A very few of the largest sections were sorted on the sorter in this office, but there was not time for the alphabetizing of a significant number by this means.

"In the past month we have had several meetings with Dean Schwartz and the Computer Center personnel and have been assured that priorities and production controls have been reordered to prevent a recurrence of this situation. Please be assured we shall exercise every precaution in this office to insure that this mistake is not repeated."

Minutes of the Graduate Council Meeting, December 13, 1974

The Graduate Council convened at 3 p.m. in the Conference Room E-103 Martin Hall. The meeting was called to order by Dean Schwartz with the following present: Dr. Brown, Dr. Dysart, Dr. Smith, Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Matthews (for Dr. Rodgers), Dr. Henricks, Prof. Falk, Dr. Tanner and Dr. Maxwell. Dr. Wolf attended as a visitor.

The minutes of the November 8, 1974, meeting were approved as distributed.

A motion was made, seconded and passed to reconsider three courses previously tabled by the Council. These, along with the following new courses and changes, were approved:

COLLEGE OF AGRICULTURAL SCIENCES

CRD 611

Investment in Human and Natural
Resources

CRD 612

Regional Economic Development Policy

Gen 661

Biometrical Genetics

COLLEGE OF ARCHITECTURE

CRP 821

Intergovernmental Relations in the
Planning Process (change in hours)

CRP 853

Introduction to Planning Studio I
(course description and hour change)

CRP 854

Planning Studio II (course description
change)

CRP 863

Planning Studio III (course description
and hour change)

CRP 865

Planning Studio IV (course description
and hour change)COLLEGE OF ENGINEERING

MatE 661

Elements of Metallurgy

MatE 662

Heat Treatment of Steels

MatE 663

Metallurgy of Welding and Non-Destruc-
tive Testing

MatE 664

Industrial Corrosion of Metals

MatE 665

Introduction to Plastics

COLLEGE OF INDUSTRIAL MANAGEMENT AND
TEXTILE SCIENCE

Econ 806

International Trade Theory

Mgt 812

Transportation Planning and Policy

COLLEGE OF LIBERAL ARTS

Engl 611

The Classics in Translation

Pol Sc 625

Governmental Budgetary Process

Pol Sc 629

American Politics and Education

Pol Sc 633

American Constitutional Law II

Dr. Mandel, chairperson, presented a report from the subcommittee on graduate admission requirements. A motion was made, seconded and passed to accept the report as information.

The material on residency and other points of policy clarification for the graduate catalog was discussed and certain editorial changes suggested. A motion was made and approved to accept the material as information.

Mr. Lauten, graduate student representative, expressed a concern on behalf of graduate students in regard to the irregularity and inconsistency in the offering of graduate courses. After a discussion, it was noted that this matter would be considered by the committee studying areas of duplication in graduate course offerings and programs. Both Mr. Lauten and Mr. Lyle were appointed to serve on this committee.

Several items appearing on the agenda were deferred until January 1975.

A motion was made and approved to adjourn.

**Minutes of the Graduate Council
Meeting, December 17, 1974**

The Graduate Council met at 10:30 a.m. in the Conference Room E-103 Martin Hall.

Dean Schwartz called the meeting to order. Those present were: Dr. Brown, Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Dr. Rodgers, Dr. Henricks, Prof. Lee (for Prof. Falk), Dr. Tanner and Dr. Maxwell.

The following distributions were made and discussed:

1. Sample of EdS certificate
2. Enrollment statistics for fall 1974
3. Graduate School admission data
4. Graduate Record Examinations data, October 1973-October 1974.

Masters and Ph.D. candidates completing all requirements for Dec. 19, 1974, graduation were approved to receive degrees.

A motion was made, seconded and passed to adjourn.

Minutes of the University Library Committee Meeting, November 11, 1974

Present: Hewitt D. Adams (chairman), Furman R. Gray, Gordon E. Howard, Edward F. Olive, Kenneth J. Russo, Tah Teh Yang, Doris R. Helms, April Baker and J. W. Gordon Gourlay (secretary).

Minutes of the meeting of Oct. 14 were approved.

Professor Helms commented on a survey that she is making in the College of Physical, Mathematical and Biological Sciences in relation to the use of scientific journals, xeroxing and related matters with a view to making library materials more readily accessible.

Mr. Gourlay reviewed some of the activities of the library during 1973-74.

A. Library Instruction

The library staff had given a total of 124 lectures to classes which had been brought to the library to receive general instruction in the use of the library and some of the basic reference sources. Each lecture was in most instances followed by a two-hour assignment. Of the 124 lectures, 103 were for students in freshman English, but also included 200 freshman students in the College of Nursing as well as several classes of students in advanced courses. Instruction in the use of the library is available to any class whose instructor requests this service.

B. Inter-library Loans

To supplement its collections, the library borrowed 1,843 items from other libraries. In turn it loaned 1,086 items. Of the 1,128 items borrowed by the Science, Engineering and Agriculture Division, 326 were available from the Medical University of South Carolina.

C. Southeastern Library Network

A system which will permit libraries in the Southeast to cooperate by using electronic techniques for library operations, i.e. shared cataloging, catalog card reproduction, etc., should be available in 1975 when 99 libraries have CRT terminals installed. These terminals will tie them in with the Ohio College Library Center (OCLC). The data bank in Ohio consists of about one million titles and is increasing at the rate of 2,000 titles per day. Eventually there will be a data bank in Atlanta. Clemson expects to receive its first terminal in May or June. From the earliest beginnings of SOLINET, the Southern Regional Education Board had provided support and assistance to this undertaking and will have two representatives on the Board of Directors. President Edwards has agreed to serve as one of the SREB's two members on the Board of Directors of SOLINET.

Time of next meeting, Monday, Jan. 12, 1975, at 3:30 p.m.

The January 15, 1975, issue of the Clemson University Newsletter was designated Vol. 10 No. 11 rather than No. 10. Therefore, there will be no No. 10 in the 1974-75 year.

Calendar of Campus Events

- 1 -- Basketball: North Carolina, 8:00 p.m., Littlejohn Coliseum.
- 1 -- Woman's Club: "Clemson Community Mini Fair," a display of exhibits from the local area. 10:00 a.m. - 6:00 p.m., Clemson House, open to the public, admission free.
- 2 -- Game Day: Chess and checkers, 3:00 p.m., YMCA, open to students, faculty and staff.
- 2 -- Sunday Free Flick: A Hunting We Will Go, 8:00 p.m., YMCA, admission free with University I. D.
- 3 -- Plant Pathology Seminar: "Tissue Culture - Theory and Methodology," with Dr. Earlene Rupert, 12:20 p.m., 222 Long Hall, open to interested persons.
- 3-5 Movie: Sleuth, 6:30 and 9:00 p.m., YMCA, 50¢ with University I. D.
- 5 -- Mad Mountain Mime, 8:00 p.m., Daniel Hall Auditorium, admission free with University I. D.
- 5 -- Billiards - 8 Ball Competition, 7:00 p.m., YMCA, open to students, faculty and staff.
- 6 -- Fort Hill Clemson Club Tip-Off Luncheon, 12:00 noon, Clemson House.
- 6 -- Chemistry Seminar: "Non Equilibrium Velocity Distributions in Gas Phase Reactions," with Dr. J. Michael Fitzpatrick. 8:00 p.m., 131 Brackett Hall, open to interested persons.
- 6 -- Movie: Dr. Strangelove, 8:00 p.m., Tillman Hall Auditorium, admission free with University I. D.
- 6 -- Insurance Short Course, 7:00 p.m., register at YMCA, open to students, faculty and staff.
- 6 -- Environmental Systems Engineering Seminar: "Water Resources Curriculum Development," Russell F. Christman, James Lamb, University of North Carolina. 4:00 p.m., 302 Rhodes, open to interested persons.
- 6-8 Movie: Blazing Saddles, 7:15 and 9:00 p.m., YMCA, 50¢ with University I. D.
- 7 -- Ski Trip to Cataloochee, sign up at YMCA prior to date, open to students, faculty and staff.
- 8 -- Square Dance, 8:00 p.m., Food Industries Auditorium, open to students, faculty and staff, admission free.
- 8 -- CDA Concert: Lynnyrd Skynyrd, REO Speedwagon, Bonnie Bramlett, 8:00 p.m., Littlejohn Coliseum, open to the public, admission \$5.25 and \$6.25.
- 8 -- Rifle Match: North Georgia College, 9:30 a.m., basement of Wannamaker Hall, open to interested persons, admission free.

- 9 -- Game Day: Spades, 3:00 p.m., YMCA, open to students, faculty and staff.
- 9 -- Sunday Free Flick: Further Perils of Laurel and Hardy, 8:00 p.m., YMCA, admission free with University I. D.
- 10 -- Plant Pathology Seminar: "The Epidemiology of Peanut Mottle Virus in Soybean and Peanut," with Dr. James Demski, University of Georgia. 12:20 p.m., 222 Long Hall, open to interested persons.
- 10-12 Movie: Blazing Saddles, 7:15 and 9:00 p.m., YMCA, 50¢ with University I. D.
- 11 -- History Film: Frank Capra's Mr. Deeds Goes to Town, sponsored by the History Club, discussion led by Dr. J. E. Sargent, 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 11 -- Clemson University Concert Series: Lenox String Quartet, 8:00 p.m., Tillman Hall Auditorium, admission by student activity card, season ticket, or individual tickets on sale at the door.
- 12 -- Fine Arts Film: Odd Man Out directed by Carol Reed, sponsored by the University Union, 8:00 p.m., Daniel Auditorium, University I. D. required, admission free.
- 12 -- Speakers Bureau: Dr. Joyce Brothers, noted psychologist, 8:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 13 -- Environmental Systems Engineering Seminar: "A Flowing Stream Laboratory for Studying the Effects of Temperature on the Ecology of Stream Organisms," Raymond S. Harvey, Savannah River Laboratory. 4:00 p.m., 302 Rhodes, open to interested persons.
- 13-15 Movie: The Adventurer, 7:00 and 9:00 p.m., YMCA, 50¢ with University I. D.

WEPR Highlights

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI 89.3-FM, Charleston.

- 5,8,12 Political Science: (5,8) "The Economy: Recession and Inflation," with Dr. Bruce Yandle, head, Economics Department, (12) "The Mid-East: Chance for Peace," with Dr. Martin Slann, hosted by Dr. Ed Coulter, Clemson Political Science Department. Wednesdays at 11:00 a.m., Saturdays at 6:30 p.m.
- 5,8,12 Word-Go-Round: (5,8,12) Words from All the President's Men, with Herman and Mary Felder, Wednesdays at 11:30 a.m., Saturdays at 6:45 p.m.
- 5,12 Environment '75: (5) "State Board of Health and Environment Control," (12) "Air Quality Control in South Carolina," hosted by Henry Cheney. At 12:00 noon and 7:45 p.m.
- 6,13 Poetry Today: (6) Lancaster poet Gary Ligi, part 2, (13) Gerard Manley Hopkins, hosted by Dr. Robert Hill, Clemson English Department. At 12:00 noon and 7:45 p.m.

- 7,14 Food For Thought: (7,14) Two parts of three part program on "Partners of the Americas," with Dr. Dan Ezelle, Clemson Horticulture Department and Marie Hindman, Clemson Home Economics Department. At 12:00 noon and 7:45 p.m.
- 8 -- Performance: The Greenville Symphony, (Oct. 24 performance) at 9:00 p.m.
- 1,7,8, Majors and Minors: (1) "Time In, Time Out, Time's Up," (7) "...And a Tiny,
14 Tiny Scherzo," (8) "Beyond Words," (14) "Valentines," hosted by Dr. Ray Barfield. At 2:00 p.m.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

February 15, 1975

Vol. 14 No. 12



CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

FEB 1 7 1975
FEB 1 7 1975

Pocket Calculator HELP OR HINDRANCE ?

Housewives punch on them in grocery stores. Insurance agents whip them out faster than you can say "family protection." Late at night, nervous taxpayers blink at them, and they blink right back.

And college students are beginning to wear them around on their belts like space age pistols.

"They" are those marvels of electronic ingenuity--the pocket calculator.

While they take a lot of the sheer drudgery out of math, their growing presence on the college campus as well as their potential use by tots in grade school has to make parents wonder: Does the calcu-

lator take the place of learning to think for yourself?

Professors at Clemson University don't think so. The Department of Mathematical Sciences is ready to loan calculators to students during exams so everyone will have a calculator, and so that some students won't be stuck with the \$14 dime store special while others have a \$495 model.

For most math courses, the professors believe the calculator helps rather than hurts.

"Most college math courses teach concepts, and while a calculator can help students

figure, it can't think for them," says John Kenelly, head of Clemson's Mathematical Sciences Department.

"It's useful in about the same manner a slide rule is," he says. "We've always allowed students to use slide rules."

Kenelly believes that by eliminating the drudgery, the calculator could let the student spend more time thinking about concepts and less time going through arithmetic.

He also thinks the calculator may change the kind of questions asked on exams. Until recently instructors have had to structure their test questions carefully to avoid drowning the student in a sea of time-consuming calculations. If the students have pocket calculators, teachers would be free to ask less contrived questions.

Kenelley, who serves as chief reader designate in the Advanced Placement Mathematics program for the national Educational Testing Service, sees a growing use of calculators, even on national exams. The ETS physics group allows students to use calculators. The chemistry group will follow suit next year.

While the "electronic slide rule," as it has been called, isn't seen as frequently in grade school and high school, it will undoubtedly begin showing up there more and more as the price of the gadget keeps dropping.

Sam Buckner, a professor of education who supervises Clemson students doing practice teaching in math and physics, says while he has no objection to grade school tots using calculators, he hopes teachers will keep hammering away at arithmetic.

"I would hope, for my child at least, that teachers up through the middle school and junior high school levels won't stop teaching the 'how-to-do' in their math classes," he says. "After all, you have to know a good deal of math to use a calculator properly. You have to understand what you're putting into it before you can understand what you get out of it."

The consensus among several Clemson departments is that the pros of the electronic calculator outweigh any cons they might have, and that letting your fingers do the walking on a calculator keyboard doesn't mean that your mind stays home in bed.



Participating in Student Government's salute to the Clemson Alumni Association are (l-r) Lawrence V. Starkey, 1974 National President of the Alumni Association; J. Garner Bagnal, 1975 Alumni Association President; Reginald Brantley, Student Body President; and Sam Ingram, President-elect of the Student Senate.

Student Government Lauds Alumni Association

The Clemson Alumni Association, responsible for gifts totaling more than \$4 million the past 18 years, has been lauded by Student Government for its contributions and services to the University and students.

During halftime ceremonies of the Clemson-Maryland basketball game, Student Body President Reginald Brantley and President-elect of Student Senate Sam Ingram presented Alumni Association officers a Student Senate resolution, plaque and certificate of appreciation.

Brantley told the record crowd at Littlejohn Coliseum that "Student Government, on behalf of the students it represents, expresses deep gratitude to the alumni and friends of Clemson for their contributions to the educational mission of the University and development and human potential of its students."

The resolution states:

WHEREAS Clemson University's "margin of excellence as a South Carolina institution is made possible by the financial support of its alumni and friends," and

WHEREAS the Clemson University Alumni Association has promoted, and does promote, the striving for academic excellence at Clemson University and the development of the human potential of Clemson's students, and

WHEREAS the Alumni Loyalty Fund has contributed more than four million dollars since 1956 to help Clemson fulfill its educational mission, and

WHEREAS the gifts of the Loyalty Fund have benefited, and do benefit, directly or indirectly the students of Clemson through academic scholarships, research and development, professorships, and other programs, and

WHEREAS with the continued support of its alumni and friends, Clemson University will always be "vigorous, energetic, enthusiastic and a leader among institutions of higher education,"

BE IT RESOLVED by the Clemson University Student Senate in regular session assembled the following:

1. That by this resolution Clemson University Student Government, on behalf of the students it represents, says "THANK YOU" to the Clemson University Alumni Association in appreciation for the contributions that organization has made to the total development of Clemson University and its students.

2. That the Student Body President and Student Senate President present this resolution and a certificate and plaque of appreciation to the President of the

Alumni Association on the earliest appropriate occasion.

Egg Art Coming Up: Get Entries Ready

Mankind has always been fascinated by the pure design of the egg, by the ticklish feel of a feather, and by the infinite possibilities of flight.

What animal offers a little of each? The bird of course, and to be more specific -- the chicken.

Each spring at Clemson, South Carolinians do their creative best to translate this marvelous animal into art. The event that inspires them is the Poultry Science Department's annual Egg and Art Show.

Prof. B. D. Barnett, department head, announces that the 1975 show will be held March 20-23. He encourages all would-be egg artists to request contest rules and applications from the Poultry Science Department, P & AS Bldg. The deadline for applications to be returned is March 14.

"All ages are welcome," says Barnett. "There are 15 cash prizes in seven age categories for entries of both graphic and three dimensional art.

"This year we have a special category for adult 'egggers'. These are adults who decorate natural egg shells of any bird not on the endangered species list. The shell may be cut or decorated in any way. There are many people who have this hobby and we encourage them to enter."

Barnett adds that kindergarten entries have been particularly admired by judges in the past and he hopes there will again be a large number of pre-school applicants this year.

All work must be an original effort of the artist entering the competition. Each entry must simply contain one or more natural, painted, sculpted or manufactured egg or feathers. Painting of any domesticated or semi-domesticated bird and egg tempera paintings on any subject are acceptable.

Nominations Open for 1975 Alumni Master Teacher Award

Students and alumni, in their second joint effort of its kind in Clemson history, this year will team up to select the professor they consider the best on campus.

The Student Alumni Council (SAC), a 30-member student group on campus formed to coordinate student and alumni activities, will present the Master Teacher Award -- \$1,000 in cash, provided by the Alumni Association -- to the winner at spring commencement.

SAC, acting as the official student body spokesman to the Alumni National Council, will make the final selection but has opened nominations to students and alumni alike.

The Student Alumni Council met last week and renewed the following guidelines in regard to selection of the recipient of the 1975 Alumni Master Teacher Award:

- (1) cannot be a current Alumni Professor
- (2) must have been on the faculty of Clemson University for the previous three
- (3) full academic years.
- (3) can be the recipient of the award only once
- (4) sixty (60) per cent of the nominee's classes must be on the undergraduate level
- (5) no restriction by degree
- (6) no age requirement

These guidelines were approved by the Vice President for Student Affairs and the Vice President for Academic Affairs in 1973 prior to the selection of Dr. Louis Henry as the first recipient in 1974.

Nominations should be mailed to the Student Alumni Council, in care of the Clemson Alumni Association, and will not be carried over from year to year. The Alumni Master Teacher Committee will

review the nominations, select ten (10) for presentation to the full Student Alumni Council for their selection of this year's outstanding faculty member.

The Award will be presented at the Commencement Exercises in May.

Board Approves Name Change To College of Sciences

The Clemson University Board of Trustees has approved a change in the name of the former College of Physical, Mathematical, and Biological Sciences to the College of Sciences. This change became effective on January 1, 1975.

The departments within the College of Sciences are Biochemistry, Botany, Chemistry and Geology, Mathematical Sciences, Microbiology, Physics and Astronomy, and Zoology.

Clemson Clinic Offers Help for Poor Readers

If your child is having difficulty reading well enough to keep up with classmates, you might consider taking him to the educational clinic at Clemson.

Parents are interviewed during the first hour of their children's testing. In addition to reading tests, each child is given intelligence and psychological tests and a physical screening for vision, hearing and coordination. Tests are administered from 9 a.m. to noon and 1 to 3 p.m., Monday through Wednesday. Barbara M. Raetsch, director of the clinic, notes that the length of the test is like a regular school day.

After the test is completed Raetsch and her staff prepare a written report to send to the child's school. The report outlines the child's strengths and weaknesses. Where weaknesses are pointed out, the report recommends exercises to strengthen that area of performance. Raetsch, who received her doctorate from the University of Georgia in 1973, works with five graduate students in evaluating the pupils.

If a child needs it and lives close enough to attend, he is referred to tutoring sessions conducted on the campus one or two evenings a week under the direction of Gordon Gray, director of Clemson's reading program.

Some \$200 worth of tests are given free to each child participating in the clinic. The clinic serves a dual purpose. It provides testing and evaluation experience for graduate students in elementary and secondary education and offers a public service to the schools, parents and children of the state.

Raetsch says the clinic accepts pupils referred by parents or by schools, but that school referrals get top priority. Children from 5 to 18 are eligible for the clinic.

To obtain forms necessary for an appointment contact: Dr. Barbara M. Raetsch, Director, Educational Clinic.

April 15 Set for Rotation Date For University Council and Committee Appointments

The following is the text of a memorandum to the faculty from Dean Victor Hurst regarding University council and committee appointments:

"In recent years, July 1 has been the effective date for rotating persons on and off University councils and committees. This has proved a hardship in some cases. For example, transition periods have been effected without the benefit of all council or committee members being present. This point becomes particularly pertinent where councils and committees go through some form of reorganizing procedures.

"In discussing the matter with administrators, faculty, and students, it has become evident that an earlier changeover date for appointments and terminations would be desirable. As a result, beginning with the current academic year, April 15 is hereby set as the date at which committee appointments and terminations will occur for University councils and committees.

"In view of this action, it is requested that persons who had been appointed to councils and committees with effective termination dates of July 1, 1975, hereby consider themselves terminated from councils and committees effective April 15, 1975."

Nominations for Algernon Sydney Sullivan Award Invited

The Scholarships and Awards Committee invites all faculty and staff members to submit nominations for the non-student recipient of this year's Sullivan Award, which will be presented on Honors and Awards Day April 9, 1975.

Algernon Sydney Sullivan Medallion. A valuable and artistic memorial, established by the Southern Society of New York in honor of its first president, is awarded each year by the University to a member of the graduating class and to one other person who has some interest in, association with, or relation to the institution, official or otherwise, of a nature as to make this form of recognition appropriate. The recipients of this award shall be chosen in recognition of their influence for good, their excellence in maintaining high ideals of living, their spiritual qualities, and their generous and disinterested service to others.

Nominations should be sent to Corinne Sawyer, 416 Strode Tower, by Monday, February 24, 1975.

Non-student recipients of the Sullivan Award for the past ten years have been: 1965 - Charles Anthony Arrington; 1966 - Virginia Earle Shanklin; 1967 - James Robert Roy Cooper; 1968 - James Francis Brynes; 1969 - Inez Watson; 1970 - George Hubert Aull; 1971 - Gaston Gage; 1972 - Gertrude Bailey; 1973 - Josephine Stribling Lazar; 1974 - Everett Laitala.

Accounting and Finance

Richard V. Calvasina (Asst Prof) was awarded the Certificate in Management Accounting last fall. He was one of 90

accountants who successfully completed the five-part CMA examination offered in December 1973 and who satisfied the required two years of management accounting experience.

James A. Turner Jr. (Assoc Prof) presented a talk, "Innovations and Problems in Teaching Tax" at the annual meeting of the South Carolina Association of Accounting Instructors, Technical Session, December 1974.

J. A. Turner Jr., along with Professors Davison and Englebrecht of the University of South Carolina, authored a paper, "A Tax Alternative to Community Park Expenditure Capitalization," which was published in the Journal of Real Estate Taxation, Winter, 1975, Vol. II, No. 2.

Animal Science

C. E. Hood (Prof) presented a paper, "Hydraulic Applications for Prototype Fruit Harvesting and Handling Equipment," at the National Conference on Fluid Power sponsored by the Illinois Institute of Technology at the Philadelphia Civic Center, Nov. 12-14. This paper was co-authored by B. K. Webb (Prof).

A. G. Jordan (Asst Ag Eng) presented a paper, "Performance and Costs of Herbicide Injection during Planting vs. Conventional Incorporation," at the Beltwide Cotton Production Research Conference in New Orleans, Jan. 6-8.

T. H. Garner (Prof) participated as a member of the Technical Committee on the S-69 Regional Research Project at the Beltwide Cotton Production Research Conference in New Orleans, Jan. 6-8.

J. R. Lambert (Prof) co-authored a paper, "Gossym: The Simulation of Growth and Yield in Cotton," presented by D. N. Baker (former Alumni Visit Prof) at the annual meeting of the American Society of Agronomy in Chicago, Ill., in November. This paper was co-authored by J. M. McKinion (USDA, ARS) and J. D. Hesketh (USDA, ARS).

E. B. Rogers Jr. (Assoc Prof) has been elected Vice President of the South Carolina Council of Engineering Societies. The council is made up of representatives of various engineering organizations in the State and serves in an advisory capacity to the Governor, the General Assembly and the State Board of Engineering Examiners. Prof. Rogers represents the S. C. Section of the American Society of Agricultural Engineers on the Council.

The following papers were presented at the 1974 winter meeting of the American Society of Agricultural Engineers in Chicago, Ill., Dec. 10-13:

C. L. Barth (Assoc Prof) co-authored a paper, "Sampling and Analyses of Gases/Odors," presented by R. K. White (Ohio State Univ). This paper was also co-authored by D. C. Ludington (Cornell Univ).

B. K. Webb (Prof), "Effects of Frequency and Acceleration on Peach Bruising During Transit." This paper was co-authored by T. W. Plumblee (former Grad Stu).

C. E. Hood (Prof), "A New Fresh Market Tomato Harvesting System." This paper was co-authored by B. K. Webb, Y. Alper (former Visit Instr from Israel), E. T. Sims (Prof, Hort) and R. A. Jobes (Asst Prof, Ag Econ).

Agricultural Engineering

The following papers were presented by staff members of the Department of Animal Science at the annual meeting of the Southern Section of the American Society of Animal Science, Feb. 2-5 in New Orleans, La.:

Awards Competition paper: "Effects of Selenium of Rumen Fermentation," by W. E. Billon (Grad Stu), R. L. Edwards (Assoc Prof), and W. P. Byrd (Prof, Exp Stat).

Papers not submitted for awards competition:

"Beef Grade and Marbling as Related to Palatability," G. C. Skelley (Prof) and N. J. Van Dyke (Grad Stu).

"Silage-Grain Systems for Finishing Steers," R. L. Edwards and G. C. Skelley.

Ceramic Engineering

G. C. Robinson (Prof and Hd) presented a paper, "Extrusion of Ceramic Bodies," at the tenth conference on Ceramic Science, University of Florida, Gainesville, Fla., Jan. 29.

Chemistry

Muriel B. Bishop (Assoc Prof) presented a seminar at the University of North Carolina-Asheville Dec. 12 and another at Berry College Jan. 17, "Enzymes Used as Diagnostic Tools in the Clinical Laboratory."

George B. Park (Asst Prof) presented a seminar to the Department of Chemistry of Furman University, Jan 17, "High Performance Liquid Chromatography."

Civil Engineering

The Civil Engineering Department received \$3,000 from the American Institute of Steel Construction, Inc., towards the grant-in-aid study "Evaluation of the Strength of Column Web Connections." The principal investigators are Rudolf Elling (Assoc Prof) and Richard Kapp of Greenville Steel Company.

Subhash C. Anand (Assoc Prof) published discussion of a paper, "Stresses on Shallow Circular Pipe by Transformed Section," by Richards and Agrawal, which appeared in the Journal of the Geotechnical Engineering Division, ASCE, Vol. 101, No. GT1, Jan. 1975, pp. 79-80.

Paul B. Zielinski (Assoc Prof), who was chairman of the Mariculture Session, and Walter E. Castro (Assoc Prof, Mech Engr)

participated in the World Mariculture Society Meeting at the University of Washington in Seattle Jan. 30 and later toured the Macrobrachium Shrimp Research Facilities at the University of California at Davis Jan. 31.

College of Education

Harold F. Landrith (Dean) conducted workshops on Systems Approach to Teacher Education at Presbyterian College Jan. 18 and at Claflin College Jan. 25.

Dairy Science

The following papers were presented at the Southern Association of Agricultural Scientist annual meeting held in New Orleans Feb. 3-5:

J. F. Dickey (Assoc Prof), "Fine Structure of the Isthmus of Bovine Oviduct."

J. J. Janzen (Prof), "Use of Bromthymol Blue as Indicator for Rancidity Measurements in Milk."

G. D. O'Dell (Assoc Prof), "Metabolic and Lactational Responses to an Ensiled Complete Ration."

Economics

Russell D. Shannon (Assoc Prof) published a review of Government in the American Economy: Conventional and Radical Studies on the Growth of State Economic Power edited by Robert B. Carson, Jerry Ingles, and Douglas McLand in the Dec. 1974 issue of the Journal of Economic History.

Elementary and Secondary Education

John H. Walker (Asst Prof) led a seminar Jan. 15 for representatives of the administration, faculty and student body at Anderson College on "Student Due Process Rights in Higher Education."

English

Robert W. Hill (Asst Prof) spoke Jan. 2 to the Charlotte Writers' Club on "Writing for the Academic Literary Journal."

Entomology and Economic Zoology

A scientific note, "Nymphal Development and Fecundity of Geocoris spp. Surviving Insecticide Treatments to Soybeans," by J. T. Walker (Grad Res Asst), S. G. Turnipseed (Prof) and Merle Shepard (Asst Prof) was published in Environmental Entomology, Vol. 3:1036-1037.

A paper, "Seasonal Abundance of Predaceous Arthropods in Soybeans," by Merle Shepard, G. R. Carner (Asst Prof) and S. G. Turnipseed was published in Environmental Entomology, Vol. 3:985-988.

A paper, "Potential of Geocoris punctipes and Nabis spp. as Predators of Epilachna varivestis," by Van Waddill (Grad Res Asst) and Merle Shepard was published in Entomophaga, Vol. 19:421-426.

A paper, "A Modified Cone Emergence Trap with Increased Capabilities for Pecan Weevils," by Robert West (Grad Res Asst) and Merle Shepard was published in the Florida Entomologist, Vol. 57:357-360.

Merle Shepard chaired the Heliothis conference at the Entomological Society of America meeting at Minneapolis, Minn., Dec. 1.

A paper, "A Comparison of Predation by Stiretrus anchorago and Podisus maculiventris on the Mexican Bean Beetle," was presented by Van Waddill and Merle Shepard at the National Meeting of the Entomological Society of America at Minneapolis, Minn., Dec. 3.

A paper, "Analysis of Sampling Techniques for the Pecan Weevil, Curculio caryae," was presented by Robert West and Merle Shepard at the National Meeting of the Entomological Society of America at Minneapolis, Minn., Dec. 2.

A seminar, "Developing a Computer Simulation Model for Populations of the Mexican Bean Beetle in Soybeans," by Merle Shepard was presented to the University of Georgia Coastal Plain Experiment Station, Tifton, Ga., Jan. 10.

William H. Fleming (Grad Stu) and Lloyd G. Webb (Assoc Prof) presented a paper, "Home Range, Dispersal and Habitat Utilization of Wild Turkey Gobblers During the Breeding Season," at the annual meeting of the Southeastern Association of Game and Fish Commissioners held in White Sulphur Springs, West Va., Nov. 18-20.

John Morse (Visit Asst Prof) attended the national meeting of the Entomological Society of America and presented a paper, "A Tribal Classification of the Caddisfly Family Leptoceridae (Trichoptera)."

J. D. Hair (Asst Prof) and D. K. Woodward (Grad Res Asst) were invited to participate in a meeting of the South Carolina Forestry Study Committee in Columbia Nov. 13. They gave a presentation on the current status of beavers and discussed the impact this species of wildlife is presently having on forest and agribusiness resources in S. C.

H. A. Loyacano (Asst Prof) presented papers, "Pupae of Face Fly as Food for Channel Catfish," and "Initial and Delayed Mortalities of Largemouth Bass Captured in the 1973 National Keowee B.A.S.S. Tournament," co-authored with D. L. Archer (Utah Div of Wildlife Res) at the 28th annual meeting of Southeastern Association of Game and Fish Commissioners, White Sulphur Springs, W. Va., Nov. 17-20.

Richard C. Fox (Prof) received a citation from the Southern Forest Disease and Insect Research Council for "Outstanding Contributions to Forest Pest Research" at their annual meeting in Atlanta in December.

T. E. Skelton (Assoc Prof) was appointed to the Committee on Education of the Entomological Society of America for the calendar year 1975. This is the third consecutive year of service on this committee.

T. E. Skelton participated in a symposium, "Educational Perspectives," at the national meeting of the Entomological Society of America in Minneapolis Dec. 2-4. Topic discussed was "Entomology for Non-Science Majors."

T. E. Skelton presented talks on insect reproduction, growth and development to five biology classes at Easley High School on Dec. 12.

S. B. Hays (Prof and Hd) attended the National Meeting of the Entomological Society of America in Minneapolis Nov. 28-Dec. 1. He served on the Executive Committee and reported as chairman of the ESA publications committee.

Environmental Systems Engineering

John H. Austin (Prof and Hd) was selected by NSF to serve as a panelist to review Instructional Scientific Equipment Program (ISEP) proposals at the New Orleans review session Jan. 30-Feb. 1.

John H. Austin will speak to the Northeast Chapter of Professional Engineers in Athens, Ga., Feb. 20. Dr. Austin will discuss "Environmental Engineering in Action."

Forest and Recreation Resources

Prof. W. H. Davis McGregor (Dean) has been elected chairman of the Appalachian Section, Society of American Foresters. Membership of the professional society includes foresters from Virginia, North Carolina and South Carolina. Prof. Koloman Lehotsky, Head Emeritus of the Department of Forestry, is secretary-treasurer.

Geology

Robert D. Hatcher Jr. (Assoc Prof) was an invited participant in the Pre-Mesozoic Plate Tectonics Penrose Conference Jan. 5-10 in Vail, Colo. He was one of four participants invited from the Southeast and presented the paper, "Data and Ideas to be Considered if the Brevard Zone is

to be Interpreted as a Continental Suture."

Villard S. Griffin Jr. (Assoc Prof) gave an invited lecture on southern Appalachian geology before the faculty, staff and students of the Mineralogist-Geologisk Museum and Institut in Oslo, Norway, Jan. 14.

Prof. Griffin also presented a seminar on southern Appalachian Migmatites before the petrology section of the Geologinen Tutkimuslaitos (Geological Survey of Finland) at Helsinki, Finland, Jan. 17.

George M. Haselton (Assoc Prof) is co-author of the publication Reconnaissance Glacial Geology of Northeastern Baffin Island, Canadian Geological Survey Paper #74-20, 1974. This discusses recent glacial events and landform development in the fiords of northeastern Baffin Island.

History

John LeBourgeois (Asst Prof) published "William Morris at St. James's Palace: a Sequel" in the Journal of the William Morris Society, Vol. III, No. 1, Summer 1974.

Industrial Management

C. H. Whitehurst Jr. (Prof, on leave) participated in a Unified Seapower Symposium presented by the U. S. Maritime Administration and the U. S. Navy at Treasure Island, San Francisco, Dec. 3.

Gerald Waddle (Asst Prof) spoke at the annual spring banquet of Iota Lambda Sigma, national honor fraternity for industrial education, Jan. 21. The topic of his presentation was "Small Business Administration."

Physics and Astronomy

"Ghost Neutrinos in Plane-symmetric Spacetimes" by Talmadge M. Davis (Grad Stu) and John R. Ray (Assoc Prof) was published in Journal of Mathematical Physics, Jan. 1975, p. 75.

"Neutrinos in Cylindrically-symmetric Spacetimes" by Mr. Davis and Prof. Ray was published in Journal of Mathematical Physics, Jan. 1975, p. 80.

Carlton W. Ulbrich (Assoc Prof) has been awarded a \$25,600 contract by National Center for Atmospheric Research, Boulder, Colo. The work sponsored by the contract will search for physical differences between seeded and unseeded hailstorms in northeast Colorado through analysis of surface network and radar data collected by the National Hail Research Experiment.

Poultry Science

Walter S. Walker (Assoc Prof) and Thomas Eleazer, DVM (Avian Pathologist, Clemson Livestock-Poultry Lab), while on annual leave presented papers at the North American Game Breeders and Shooting Preserve Association annual convention held aboard a cruise ship at Nassau, The Bahamas. Prof. Walker presented papers on Quail Breeding, Basics of Quail Production, Cage Density for Quail Breeders and Feeding Trials for Quail. Dr. Eleazer presented papers on the Treatment and Control of Various Game Bird Diseases. Dr. Eleazer coordinated the convention program and Prof. Walker served as Convention Chairman and Coordinator. The NAGB and SPA is an International Association.

Professional Development

With the development support of the Title I, Higher Education Act of 1965, Program IMPACT, the Office of Professional Development and Continuing Engineering Education are offering a one-week workshop "Management Training for Water and Wastewater Utility Supervisors," to be held in the College of Industrial Management and Textile Science, Feb. 24-28. Janet J. Glocker (Instr, Econ) and Fred Delvecchio (Project Admin, ESE) are the coordinators for the program.

W. C. Whitten (Prof, Econ) is the chairperson for a two-day "Corporate Cash Management" seminar to be held in the College of Industrial Management and Textile Science, March 4-5.

Ms. Glocker is the chairperson for a "Letter and Report Writing Workshop" which will be taught by Dr. Dugan Laird, March 6-7 in Sirrine Hall. Dr. Laird has been a consultant, writer, speaker, and seminar leader.

E. S. Olson (Assoc Prof, Textiles) and Emory Punch (IM Res Grad Asst) are co-chairpersons for a "Symposium on Printing Thickeners" scheduled for March 11-12 in Sirrine Hall.

Lawrence Matthews, a certified management consultant with 26 years of experience, will be the guest lecturer for "Estimating and Controlling Manufacturing Costs," March 13-14 in Sirrine Hall. Ms. Glocker is the chairperson.

Psychology

David J. Marx (Asst Prof) and David J. Senn (Assoc Prof) represented Clemson University and the Greenville and Anderson Mental Health Centers in a series of seminars on the development, implementation and evaluation of paraprofessional training for both University undergraduates and staff of Mental Health Centers. The conference was held in Denver, Colo. Nov. 6-8.

Recreation and Park Administration

Jack Stevenson (Prof) was keynote speaker and resource for the American Camping Association, Texas Section, in Houston Jan. 10-11.

Prof. Stevenson was a member of the National Instructional Team leading a training workshop Jan. 16-18 in Indianapolis for the leadership chairpersons of the 35 sections of The American Camping Association.

He also led a three-hour workshop Jan. 21 on Management by Objectives in Camping at the Easter Seal Camping and Recreation Director's Institute sponsored by the National Easter Seal Society for Crippled Children and Adults, Inc. at Camp Easter-in-the-Pines, Southern Pines, N. C.

Sociology

Ronald J. Knapp (Assoc Prof) has published a review of The Urbanization Process of a Poor Mexican Neighborhood by Antonia Ugalde in Southeastern Latin Americanist, XVIII, 3, 12, (Dec. 1974).

William C. Capel (Assoc Prof) has published a review of Zapotec Deviance: the Convergence of Folk and Modern Sociology by Henry Selby in Southeastern Latin Americanist, XVIII, 3, 11-12, (Dec. 1974).

Textile Department

C. W. Roberts (Assoc Prof) took part in a two-day polymer symposium Jan. 13-14 at the University of Arizona honoring the 80th birthday of Dr. C. S. Marvel.

Robert H. Barker (J. E. Sirrine Prof) presented a paper at the Winter Gordon Research Conference, Santa Barbara, Calif., Jan. 20-24.

Roger Barker joined the faculty on Dec. 10 as a Visiting Instructor. Mr. Barker is presently Chairman of the Department of Mathematics and Physical Sciences at Greenville Technical College.

Donald G. Kubler (Prof of Chemistry, Furman University) has been awarded a faculty fellowship from the National Science Foundation to study macromolecular chemistry. He will work with Prof. Robert H. Barker and Prof. Roberts in the Textile Science Department from February through May 1975.

**Minutes of the
Educational Council Meeting,
January 13, 1975**

Present: Robert C. Edwards, presiding;
Victor Hurst, Melford A. Wilson, Stanley G. Nicholas, Joseph B. McDevitt, Walter T. Cox, Luther P. Anderson, H. Morris Cox, C. R. Dillon, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, A. E. Schwartz, W. D. Trevillian, K. N. Vickery,

Henry E. Vogel, Lyle C. Wilcox, and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of December 2, 1974, were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommended additions, deletions and changes in the curricula, when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Graduate Courses

CRD 611

Investment in Human and Natural Resources, 3 cr. (3 and 0)

CRD 612

Regional Economic Development Policy, 3 cr. (3 and 0)

Gen 661

Biometrical Genetics, 3 cr. (3 and 0)

II. COLLEGE OF ARCHITECTURE

(A) Graduate Course Changes:

CRP 821

Intergovernmental Relations in the Planning Process, (Change in hours only.), 1-3 cr. (Var.), 1-3 (Var.)-0)

CRP 853

Introduction to Planning Studio I, (Change in course description only.), 3 cr, (0 and 9)

CRP 854

Planning Studio II, (Change in description.), 3 cr. (0 and 9)

CRP 863

Planning Studio III, (Change in description and hours.), 3-6 cr. (Var) (0 and 9-18)

CRP 865

Planning Studio IV, (Change in hours and description.), 3-9 cr. (Var) (0 and 9-27)

(B) Change and Revision of Curricula

1. Delete the minor concentration under the B.A. and B.S. programs and include the following elective policy:

Elective Policy:

30 elective credit hours are required for graduation. A minimum of 9 credits shall be selected from major study areas within the College of Architecture and a minimum of 15 credits, including 6 hours in literature* shall be selected from minor study areas outside the College. All elective courses shall be selected in consultation with the student's advisor.

2. Under the B.S. in the Building Construction program, revise the English program as follows:

6 elective credits required; 3 of which may be in oral expression and the remainder in literature*.

*To be selected from the following:
English 203, 204, 205, 206, 207 and 208.

III. COLLEGE OF EDUCATION

(A) New Undergraduate Courses

AgEd 100

Orientation and Field Experience, 1 cr.
(0 and 2)

AgEd 200

Supervised Field Experience I, 1 cr. (0 and 3)

AgEd 300

Supervised Field Experience II, 1 cr.
(0 and 3)

IV. COLLEGE OF ENGINEERING

(A) New Undergraduate Courses

Engr 330

Engineering Aspects of Energy Systems,
3 cr. (3 and 0)

ET 375

Materials of Industry, 3 cr. (3 and 0)

MatE 461

Elements of Metallurgy, 3 cr. (2 and 3)

MatE 462

Heat Treatment of Steels, 3 cr. (2 and 3)

MatE 463

Metallurgy of Welding and Non-Destructive Testing, 3 cr. (2 and 3)

MatE 464

Industrial Corrosion of Metals, 3 cr.
(2 and 3)

MatE 465

Introduction to Plastics, 3 cr. (3 and 0)

(B) New Graduate Courses

MatE 661

Elements of Metallurgy, 3 cr. (2 and 3)

MatE 662

Heat Treatment of Steels, 3 cr. (2 and 3)

MatE 663

Metallurgy of Welding and Non-destructive Testing, 3 cr. (2 and 3)

MatE 664

Industrial Corrosion of Metals, 3 cr.
(2 and 3)

MatE 665

Introduction to Plastics, 3 cr. (3 and 0)

(C) Undergraduate Course Changes

CrE 303

Materials Technology in Product Selection by Consumers, 2 cr. (2 and 0)
(Change in description and course title)

E&CE 201

Logic and Computing Devices, 3 cr.
(3 and 0) (Change in course number, description and title. Replaces E&CE 329 which should be deleted from the course offerings.)

E&CE 202, H202

Electric Circuits I, 3 cr. (2 and 2).
(Change in course number, title and description. Replaces E&CE 331, H331, which should be deleted from the course offerings.)

E&CE 299

Digital Computation, 2 cr. (1 and 2).
(Change in course description only)

E&CE 301, H301

Electric Circuits II, 3 cr. (2 and 2).
(Change in course number, title and description. Replaces E&CE 333, H333, which should be deleted from the course offerings.)

E&CE 302

Linear Control Systems, 3 cr. (3 and 0).
(Change in course number, title and description. Replaces E&CE 410, which should be deleted from the course offerings.)

E&CE 308

Electronics and Electromechanics, 3 cr.
(2 and 2). (Change in prerequisite.)

E&CE 317

Electrical Engineering Problems, 2 cr.
(2 and 0). (Change course number,
title, credits and description.
Replaces E&CE 327, which should be
deleted from the course offerings.)

(D) Revised Curriculum in Electrical and
Computer Engineering

Sophomore Year

Literature Requirement* 3 (3,0)
MATH 206
Calculus of Several Variables 4 (4,0)
PHYS 221
Thermal and Electrical Phenomena
3 (3,0)
E&CE 201
Logic and Computing Devices 3 (3,0)
Technical Elective 2
Elective 1
Total - 16

Literature Requirement* 3 (3,0)
MATH 208
Engineering Mathematics I 4 (4,0)
PHYS 222
Optics and Modern Physics 3 (3,0)
PHYS 224
Modern Physics Laboratory 1 (0,3)
E&CE 202
Electrical Circuits 3 (2,2)
Humanistic-Social Elective[†] 3
Elective 1
Total - 18

Junior Year

E&CE 320
Electronics I 3 (2,2)
E&CE 317
Electrical Engineering Problems 2 (2,0)
E&CE 330
Systems I 3 (3,0)
E&CE 301
Electric Circuits 3 (2,2)
E&CE 340
Electric and Magnetic Fields I 2 (2,0)
EM 211
Particle Mechanics: Statics and
Dynamics 3 (3,0)
Elective 2
Total - 18

E&CE 321
Electronics II 3 (2,2)
E&CE 302
Linear Control Systems 3 (3,0)

E&CE 341

Electric and Magnetic Fields II 2 (2,0)
Humanistic-Social Elective[†] 3
Technical Elective⁺ 3
Elective 3
Total - 17

Senior Year

E&CE 420
Power Systems Analysis I 3 (3,0)
E&CE 411
Electrical Systems Workshop 2 (0,4)
E&CE 422
Electronics III 2 (2,0)
Humanistic-Social Elective[†] 3
Technical Electives⁺ 8
Total - 18

E&CE 451
System Design Workshop 2 (0,4)
E&CE 450
Systems IV 3 (3,0)
Humanistic-Social Elective[†] 3
Technical Electives⁺ 10-9
Total 18-17

138 Total Semester Hours

*To be selected from the following:
ENGL 203, 204, 205, 206, 207 and 208.

+A minimum of six credits of technical
electives must be selected from the
design courses in the Electrical and
Computer Engineering Department. A
distribution among the engineering
sciences of not less than nine credits
is also required.

†A list of approved humanistic-social
electives is available from the student's
advisor. Any exceptions to this list
must be approved in writing by the
department head.

V. COLLEGE OF FOREST & RECREATION
RESOURCES

(A) New Undergraduate Course

RPA 190
Modern Dance, 1 cr. (0 and 3)

VI. COLLEGE OF INDUSTRIAL MANAGEMENT
AND TEXTILE SCIENCE

(A) New Undergraduate Course

IM 419

Marketing Information (Replaces IM 411.), 3 cr. (3 and 0)

(B) New Graduate Courses

Econ 806

International Trade Theory, 3 cr. (3 and 0)

Mgt 812

Transportation Planning and Policy, 3 cr. (3 and 0)

VII. COLLEGE OF LIBERAL ARTS

(A) New Undergraduate Courses

Fr 205

Elementary French Conversation & Composition, 3 cr. (3 and 0)

Fr 301

Survey of French Literature I, 3 cr. (3 and 0)

Fr 302

Survey of French Literature II, 3 cr. (3 and 0)

Fr 303

Survey of French Literature III, 3 cr. (3 and 0)

Ger 205

Elementary German Conversation and Composition, 3 cr. (3 and 0)

Span 205

Elementary Spanish Conversation and Composition, 3 cr. (3 and 0)

(B) Undergraduate Course Changes

Fr 305

Intermediate French Conversation and Composition I, 3 cr. (3 and 0). (Change in description and prerequisite)

Fr 306

Intermediate French Conversation and Composition II, 3 cr. (3 and 0). (Change in title)

Fr 307

French Civilization, 3 cr. (3 and 0). (Change in prerequisite)

Fr 308

Contemporary French Culture, 3 cr. (3 and 0). (Change in prerequisite)

Fr 309

Introduction to French Phonetics, 3 cr. (3 and 0). (Change in prerequisite)

Fr 403

Twentieth Century Prose, 3 cr. (3 and 0) (Change in prerequisite)

Fr 404

Twentieth Century Drama, 3 cr. (3 and 0) (Change in prerequisite)

Fr 405

Nineteenth Century French Romanticism, 3 cr. (3 and 0). (Change in prerequisite)

Fr 406

Nineteenth Century French Realism, 3 cr. (3 and 0). (Change in prerequisite)

Fr 407

Eighteenth Century French Literature, 3 cr. (3 and 0). (Change in prerequisite)

Fr 408

Seventeenth Century French Drama, 3 cr. (3 and 0). (Change in prerequisite)

Fr 409

Advanced Grammar and Conversation, 3 cr. (3 and 0). (Change in description)

Span 305

Intermediate Spanish Conversation and Composition I, 3 cr. (3 and 0). (Change in description and prerequisite)

Span 306

Intermediate Spanish Conversation and Composition II, 3 cr. (3 and 0). (Change in title)

Span 409

Advanced Grammar and Conversation, 3 cr. (3 and 0). (Change in description)

(C) New Graduate Courses

Engl 611

The Classics in Translation, 3 cr. (3 and 0). (This extends Engl 411 to 600 level)

PolSc 625

Governmental Budgetary Process, 3 cr. (3 and 0). (This extends PolSc 425 to 600 level)

PolSc 629

American Politics and Education, 3 cr. (3 and 0). (This extends PolSc 429 to 600 level)

PolSc 633

American Constitutional Law II, 3 cr. (3 and 0). (This extends PolSc 433 to 600 level)

VIII. COLLEGE OF SCIENCES

(A) Undergraduate Credit Change

Ch 310

Elementary Chemical Instrumentation, 4
cr. (2 and 6)

Action: Approved.

3. Revised Summer Sessions Calendar

The Dean of the University recommended a revised Summer Sessions Calendar for 1975 as follows:

Second Session

June 30 Monday - Orientation, new students

July 1 Tuesday - Registration

July 2 Wednesday - Classes begin

July 4 Friday - Classes suspended

July 12 Saturday - Classes meet

August 2 Saturday - Classes meet

August 6-7 Wednesday-Thursday - Examinations

August 9 Saturday - Graduation

Action: Approved.

E. N. Tyndall

Secretary

Minutes of the University Research Council Meeting, November 22, 1974

The University Research Council met at 1:15 P.M. in the Conference Room E-103 Martin Hall. Dean Schwartz called the meeting to order. Those present were: Dr. R. W. Henningson, Dr. E. M. Coulter, Dr. Lloyd H. Blanton, Dr. O. John Jacobus, Prof. George C. Means Jr., Dr. Robert W. McLellan, Dr. Merle Shepard and Mr. G. S. Ragan.

The minutes of the October 24, 1974 meeting were approved as distributed.

A committee, consisting of Dr. Blanton, Prof. Means, a College of Nursing representative, Dr. Tombes and Mr. Zimmerman, was appointed to study and recommend to the Council University copyright policies. It was noted that the University presently does not have any copyright policy and that there is no copyright information source within the administration. After discussion, a motion was made, seconded and passed to charge the committee (1)

with determining and documenting the need for a copyright policy and (2) with developing a policy draft for Council consideration. The Office of University Research will brief the committee on the subject matter and provide necessary assistance. Dr. Schwartz requested Dr. Blanton to call a meeting as soon as possible and elect a chairman.

A committee, consisting of Dr. Edge, Dr. Lyons, Dr. Shepard, Mr. Ragan and Mr. Prince, was appointed to study and recommend to the Council University patent policies. It was noted that the University patent committee functions through an agreement with Research Corporation, an arrangement found less than satisfactory by numerous institutions - especially in the public patent area. Dr. Shepard was requested to call an early meeting and elect a chairman of this committee. A motion was made, seconded and passed to charge the committee (1) with determining and documenting the need for a patent policy and (2) with developing a report for Council consideration. The Office of University Research will brief the committee on the subject matter and provide necessary assistance.

A discussion concerning the research policies, procedures and regulations of each college followed. Council members presented verbal and/or written reports from six colleges (copies are appended to these minutes and may be obtained in the Office of Graduate Studies and University Research upon request).

A committee, consisting of Dr. Jacobus, Dr. Coulter and Dr. McLellan, was appointed to study duplication of research effort. Dean Hurst has requested the four major councils of the University (Graduate, Undergraduate, Extension and Research) to appoint a three-person committee to study duplication of effort. Duplication of research effort was defined as the existence of multiple, expensive facilities and programs which could be consolidated to reduce expense and make available funds for other necessary research. In determining a charge for the four committees, the administration feels that it is not feasible to ask the committees to initiate a comprehensive

study as in the case of graduate programs. Initially it will be sufficient to document areas in which duplication of research effort exists. Dr. Jacobus was asked to call a meeting and elect a chairman for this committee. The Office of University Research services and assistance will be available to all three committees and Dean Schwartz will act as liaison officer.

There will be no Council meeting in December. The next meeting is tentatively scheduled for Friday, January 24, 1975.

A motion was made, seconded and passed to adjourn the meeting.

Minutes of the University Audio-Visual Committee Meeting, December 3, 1974

Present: W. H. Durham, J. C. Hubbard Jr., M. W. Jutras, Ron Mattox (for Betty P. Watkins), D. D. Moyle, P. K. Owens Jr., R. D. Riley, C. B. Russell, E. L. Wall, Samuel Wang.

Chairman Jutras opened the meeting with the introduction of C. B. Russell, the Faculty Senate's representative on the A-V Committee. The minutes of the meeting of Nov. 5 were then presented, corrected and approved.

Committee reports: Sam Wang gave the tentative dates for the Audio-Visual Show as Feb. 25-26 in the Clemson House lobby. The firms asked to participate are three to four camera shops, Polaroid Corporation, R. L. Bryan Company, Techni-Craft Incorp. and Modern Office Supply. Exhibitors have been requested to display or have on hand literature relating to a variety of equipment to include T-V, audio cassette with slide synchronization, projectors of all types and still cameras.

Mr. Durham gave the following interim report on the A-V Equipment Repair Service: Mr. Durham felt that a meaningful repair service could be provided and recommended a one semester trial using student assistance. At the end of the semester, an assessment of the cost would be available and an evaluation made. The

average time spent per job request on repair is one to two hours. With student assistance, the cost would be approximately \$5.00 plus parts while off-campus repair would be more than doubled for labor.

Prof. Ashworth, reporting on grant applications for funding of equipment purchases for a University audio-visual loan center, contacted R. W. Henningson, assistant dean, University Research, who said that no funds were available. Dr. Jutras presented a brochure from HEW on "Funding for the Improvement of Post Secondary Education" and said this is an area that could possibly meet the requirements of this funding to develop special focus programs.

Prof. Wall, reporting on areas of cooperation between A-V and Library Committee, stated that his contact with Prof. H. D. Adams of the latter committee, indicated that the Library Committee would be receptive to a cooperative effort with our committee.

Approved Jan. 14, 1975.

Respectfully submitted,

J. C. Hubbard Jr., Secretary

Minutes of the Scholarships and Awards Committee Meeting, December 10, 1974

The Scholarships and Awards Committee met in Room E-103 Martin Hall, Chairperson Corinne Sawyer presiding. Members absent: W. A. Phillips, J. L. Stonemetz, G. E. Coakley, A. M. Bloss.

The meeting opened with acceptance of the Nov. 20, 1974, minutes as circulated.

The next order of business was the appointment of an ad hoc committee to investigate grade requirements for various honors and they are as follows: S. S. Melsheimer (chairman), A. L. Recoulley, J. L. Stevenson.

The main order of business was the selection of the recipients for the

make-up scholarships for the 1974-75 academic year. The Committee accepted the recommendations made by the colleges within the University with the exception of the Burlington and the Owens-Corning Scholarships. Further information concerning the memorandums of agreement for these two scholarships and a further search for recipients was requested. This being the case, the Committee agreed to pick the recipient of the Burlington and

the Owens-Corning Scholarships at the January meeting of the Scholarships and Awards Committee.

There being no further business, the meeting was adjourned at 5:05.

Respectfully submitted,

Marvin G. Carmichael
Secretary

Calendar of Campus Events

- 15 -- Basketball: Duke, 8:00 p.m., Littlejohn Coliseum.
- 15 -- University Union Jam Session, after basketball game, Tillman Hall, open to public, admission free.
- 17 -- Spanish Film: This Strange Passion, sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 17 -- "Forum on Recession," sponsored by the Department of Economics. 8:00 p.m., Daniel Auditorium, moderated by Prof. Bruce Yandle, open to the public, admission free.
- 17 -- Plant Pathology Seminar: "Pierce's Disease and the Associated Causal Agent," by Dr. Donald L. Hopkins, University of Florida. 12:20 p.m., 222 Long Hall, open to interested persons.
- 19-21 Fifth Annual State Highway Conference, co-sponsored by the Department of Civil Engineering and the South Carolina State Highway Department. Clemson House, expected enrollment, 100.
- 19-3/19 Architecture Exhibitions: Recent Drawings and Prints from University of Tennessee Assistant Professor in Art, Clark Stewart. "Graphic Work of the Vienna Secession," a traveling exhibit organized by the Erie Art Center. Rudolph Lee Gallery, College of Architecture. Gallery open 9 - 4:30 p.m. weekdays.
- 19 -- Fine Arts Film: Odd Man Out directed by Carol Reed, sponsored by the University Union. 8:00 p.m., Brackett Hall Auditorium, University I. D. required, admission free.
- 20 -- Fort Hill Clemson Club Tip-Off Luncheon, 12:00 noon, Clemson House.
- 20 -- Nursing Lecture: "Legal and Moral Aspects of Abortion Legislation," by Dr. Helen Creighton, R.N., J.D., Professor of Nursing, University of Wisconsin. 2:00 p.m., Daniel Auditorium, open to the public, admission free.
- 22 -- Basketball: North Carolina State, 8:00 p.m., Littlejohn Coliseum.

- 24 -- Plant Pathology Seminar: "Beauveria bassiana, A Fungal Pathogen of Insects, and its Sensitivity to Agars Amended with Seven Fungicides," by Dr. Charles Drye. 12:20 p.m. 222 Long Hall, open to interested persons.
- 24 -- Foreign Language Play: A German play, Begegnung Im Balkanexpress, sponsored by the Language Department. 8:00 p.m., Food Industries Auditorium, open to the public, admission free.
- 25 -- History Club Film: Blood of the Condor, 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 25,26 Audio-Visual Equipment Display: A dealers display of audio-visual communication equipment, such as film projectors, audio cassettes, photographic equipment, etc., sponsored by the University Audio-Visual Committee. Tuesday, 10:00 a.m.-5:00 p.m., Wednesday, 10:00 a.m. - 1:00 p.m., Clemson House, open to the public, admission free.
- 25-3/2 Clemson Players present The Skin of Your Teeth. 8:00 p.m., Daniel Auditorium, open to the public, admission free. For reserved seats pick up tickets at the Daniel Auditorium box office 11 - 1:00 p.m., 3 - 5:00 p.m. from Feb. 17 through March 2.

WEPR Highlights

South Carolina Education Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI 89.3-FM, Charleston.

- 15,19, Political Science: (15) "The Mid-East: Chance for Peace" with Dr. Martin Slann, (19,22) "Rockefeller and Ford: Is This Any Way to Run a Presidency?" with Dr. Charles Dunn, (26) "What about the Defense Budget?" hosted by Dr. Ed Coulter, Clemson Political Science Department. Wednesdays at 11:00 a.m., Saturdays at 6:30 p.m.
- 15,19, Word-Go-Round: (15) "Words from All the President's Men," (19,22,26) "Words from Gulag Archipelago," hosted by Herman and Mary Felder. Wednesdays at 11:30 p.m. Saturdays at 6:45 p.m.
- 20,27 Poetry Today: (20) "War Poems," (27) "Robinson Jeffers," hosted by Dr. Robert Hill, Clemson English Department. Thursdays at 12:00 noon and 7:45 p.m.
- 21,28 Food For Thought: (21) Part three of three-part program "Partners of the Americans," with Dr. Dan Ezell and Marie Hindman, (28) "Lunch: The Neglected Meal," hosted by Marie Hindman, Clemson Home Economics Department. Fridays at 12:00 noon and 7:45 p.m.
- 15,21, Majors and Minors: (15) "Winter Music," (21) "Austere Beauties," (22) "A Winter Journey," (28) "Apt to Break into a March," hosted by Dr. Ray Barfield, Clemson English Department. Fridays at 2:00 p.m., Saturdays at 10:30 p.m.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

CLEMSON UNIVERSITY

NEWSLETTER

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

MAR 3 1975

Vol. 14 No. 13

March 1, 1975

Frank Johnstone Jervey Education Fund Endowment Announced

Clemson University announced February 18 the establishment of the Frank Johnstone Jervey Education Fund made possible by a \$100,000 permanent endowment from an anonymous donor to honor a life member of the Clemson Board of Trustees.

President Robert C. Edwards said, "Frank Johnstone Jervey Scholars will symbolize the ideal of the student scholar at its best, and in accordance with the wishes of the donor, the scholarships will be awarded strictly on the basis of exceptional academic ability and leadership qualities."

When informed of the endowment, "Captain" Jervey, as he is known to associates and thousands of Clemson students over the decades, said, "I'm amazed and most grateful because it's going for something that means more to me than almost anything."

In November 1973 Jervey was recognized by Clemson when it named its new intercollegiate athletic center in his honor.

Jervey, 81, is a Summerville native, 1914 Clemson alumnus and Clemson resident. One of seven life trustees of the University, he also served as its vice president for development from 1959 to 1963.

Jervey served in the Army in World War I and was severely wounded in 1918 during the battle for France. He was awarded the Distinguished Service Cross for extraordinary heroism, and the Italian "Marito de Guerro."

He joined the Ordnance Dept., U. S. Army, in 1924 as a civilian engineer and rose through the ranks to chief engineer, be-

coming one of the world's foremost authorities on incendiary and small arms ammunition. After World War II he received the Exceptional Civilian Service emblem, presented during Pentagon ceremonies.

Jervey has been national president of the Clemson Alumni Association and received its Alumni Distinguished Service Award in 1960, the first year it was given. He received an honorary doctor of science degree from the University in 1953.

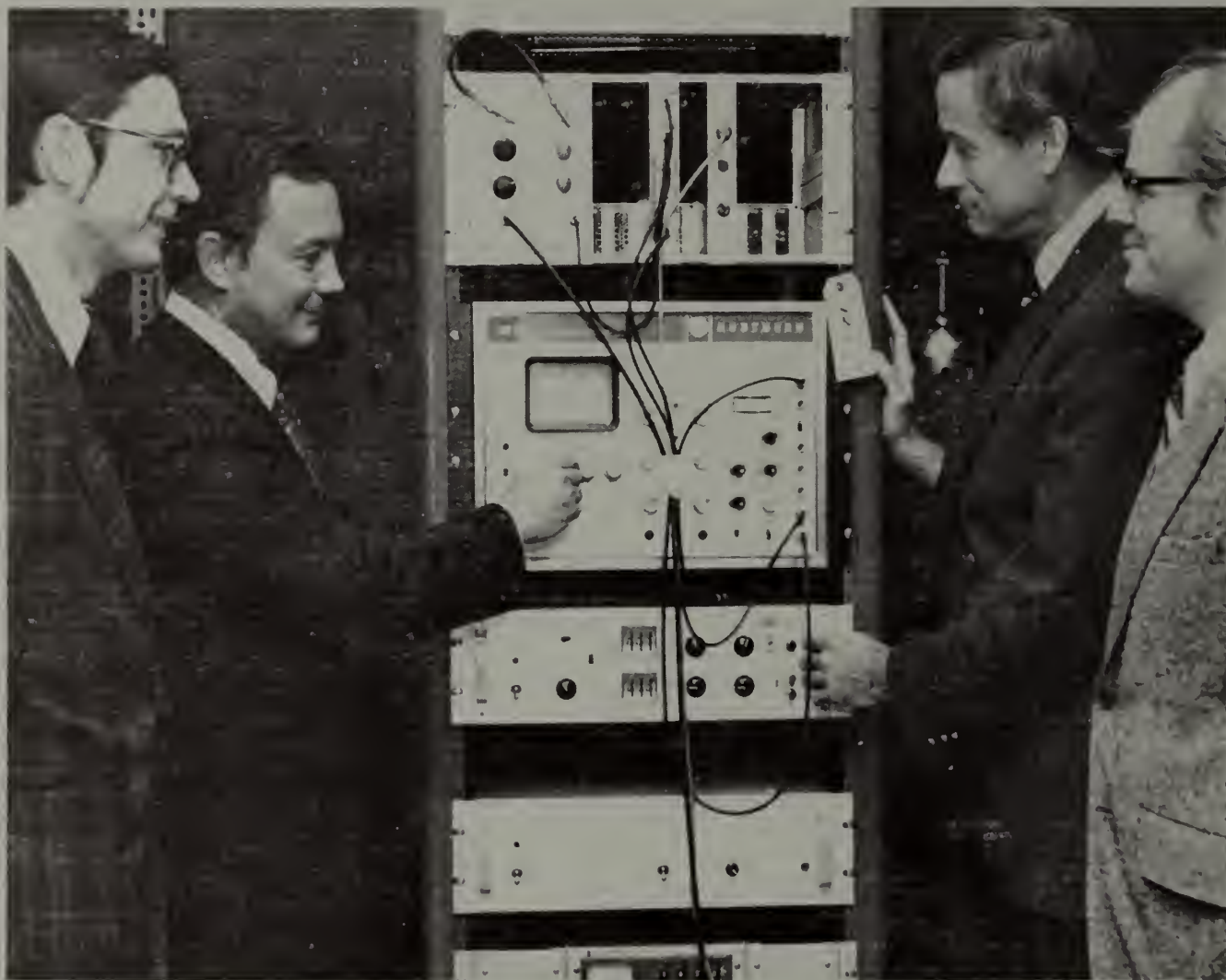
IMPORTANT INFORMATION

The following information concerns
your Health Insurance Program (Blue
Cross - Blue Shield) and Travelers
Insurance Programs.

The annual rework period (open enrollment) this year will be from March 1, 1975, through March 31, 1975. A computer generated printout indicating the current status of State Health Insurance Program coverage will be sent to each eligible employee. Any changes from present coverage and/or any new applications must be made during the open enrollment period.

Travelers Insurance rework period will also be from March 1, 1975, through March 31, 1975. Call 656-2000 for an appointment with the Travelers representative -- Al Campbell.

FOR INFORMATION CONCERNING INSURANCE PROBLEMS OR THE OPEN ENROLLMENT PERIOD CALL 656-2000 or go by the Insurance Office, G04 Sikes Hall.



MOSSBAUER SPECTROMETER PRESENTED — The American Cyanamid Company recently presented this Mossbauer spectrometer, valued at \$30,000 to the Department of Physics and Astronomy. This unit, formerly a part of the equipment of Cyanamid's research division at Stamford, Conn., was formally presented to the department by Robert F. Smith, Regional Manager of the Fibers Division of American Cyanamid. Dr. James Wood, a Clemson alumnus who now heads the Science Department at Tri-County TEC was

instrumental in arranging the transfer of the instrument to the University. Dr. Wood is a former employee of Cyanamid's research laboratory.

In the photo are (left to right) Prof. Stillwell, Physics; Mr. Smith; Prof. McKelvey, Chairman of Physics and Astronomy; and Dr. Wood. The Mossbauer spectrometer will be used for the study of crystal fields, magnetic interactions and other experimental problems in crystal physics

Public Relations Department Names Science Editor

Richard R. Newhall, a veteran newspaper journalist and native of Minneapolis, Minn., has been named science editor for Clemson's Public Relations Department.

He is in charge of science news services, a unit of the University Information Office responsible for producing news and feature stories about science and engineering activities.

Newhall, 42, has been a reporter-feature writer for the Greenville Piedmont, Rock

Hill Evening Herald, and newspapers in Arizona and New Mexico. He is a 1956 graduate of the University of Arizona

Student Alumni Council Officers Elected

Four students have been elected to head the Clemson Student Alumni Council (SAC).

They are Hamp Lindsey of Spartanburg, president; Patricia Creighton of Charleston, vice president; Edith Batson of Greenville, secretary; and Margie Goebel of Clemson, public relations officer.

SAC is a part of the Clemson Alumni Association and serves as the liaison between undergraduates and alumni. Its projects

include selection of the annual Alumni Master Teacher Award and a summer job referral service for Clemson students.



CITED FOR 250 YEARS SERVICE — Clemson President Robert Edwards presents South Carolina certificate of service to six Clemson employees who have worked for the state a total of more than 250 years. From left, the recipients are Ben Keasler, agricultural aide, 44 years; Dennis Crawford, agricultural economist, 41 years; Frances

McAlister, entomologist, 44 years; Frank Howard, former head football coach and athletic director, 43 years; Warren Henderson, agricultural supervisor, 40 years; and Clarence Gantt, grounds keeper, 44 years. The five men are Clemson residents; Miss McAlister resides in Pendleton.

Winter Reminder From The University Safety Committee

The Chairman of the University Safety and Fire Prevention Committee takes this opportunity to remind everyone that so far this winter we have been spared the accumulation of snow and ice and the resultant rash of accidents. The question now posed is -- what does the remainder of the winter have in store for us? February and March are months in which icing conditions will likely occur. The slippery accumulation from sleet, freezing rain and snow causes numerous accidents because persons try to proceed with little regard for the imminent hazards. In past years, the University accident records show that students and employees have suffered fractured bones and, in some cases, permanent disabilities from falls on ice.

The Safety Committee further reminds students, faculty and staff to take extra precautions. Whenever possible avoid outside activities. When one must go

outside, rough-soled shoes are recommended. In such emergencies, some persons have applied coarse sandpaper to the soles of old street shoes with good results. Others have resorted to golf shoes. Of course, these last two alternatives require that such shoes be removed upon entering buildings. When walking, plan your route to avoid sloping paved surfaces and stay off of icy steps and curbs. When possible, use building entrances and exits where handrails are provided.

Motorists are reminded to prepare their vehicles by installing tire chains before attempting to drive, regardless of reported clearing of highways. Parking areas and side streets will likely not be cleared of all accumulations.

A Snow and Ice Map has been prepared to assist pedestrians and motorists on campus during such conditions. The Map will be posted on all bulletin boards in academic buildings and residence halls. Priority will be given by the Physical Plant forces

to clearing frozen accumulations from the streets and paths indicated on the Map. Dangerous areas shown must be avoided. Study the approaches to your destination on campus and select a route specified for clearing.

Reminder of Changes in Establishing Retirement Service Credit for Out-of-State Service

Many employees may be eligible to transfer credit for out-of-State public employment (state, county, municipal, public school district, etc.) into the South Carolina Retirement System. Federal service is excluded; however, cooperative extension service which sometimes qualifies for both State and Federal service may be eligible. Students who are employed by the institution they are attending are excluded from membership, therefore employment while a Graduate Assistant, for example will not be accepted. Military duty is not considered out-of-State service but may be credited for retirement under a separate law.

The initial law providing for retirement credit for out-of-State service was enacted in 1960 and has been amended several times. Under the current law eligible out-of-State service may be claimed prior to July 1, 1975 on the cost basis of a lump-sum payment equal to the aggregate (plus interest, if applicable) of the contributions a member would have made to the S. C. Retirement System if he had been employed at the same rates by the State of South Carolina. Interest is not charged if payment is made within the first twelve months after enrollment, but the time limit for payment at current cost basis can not extend beyond June 30, 1975 in any instance. No payment is required for out-of-State service performed prior to July 1, 1945 but when a member elects to establish out-of-State service, all such service must be established.

Persons who may be eligible should investigate promptly in order to establish out-of-State service before July 1, 1975. In most instances the out-of-State service claimed and purchased before July 1, 1975 will cost considerably less than out-of-State service purchased after June 30, 1975. Persons who are eligible under current law are urged to claim and pay for

out-of-State service prior to July 1, 1975. Experience has shown that it may require several months to assemble the necessary out-of-State service data and certification to support claims. For this reason it is suggested that action be initiated without delay to meet the June 30, 1975 deadline. New employees who establish credit for out-of-State employment by making full lump-sum payment prior to July 1, 1975 and during the first year of membership will not be charged interest (at the rate of 4% compounded annually).

If you are interested in establishing out-of-State service or if you have questions on this subject, you should write directly to Mr. Purvis W. Collins, Director, South Carolina Retirement System, P. O. Box 11960, Capitol Station, Columbia, S. C. 29211 giving your active register number and outlining the details of your out-of-State service. Normally, claims for out-of-State service are handled directly by the S. C. Retirement System with the employee but the University Personnel Division will assist you in any way possible. Please contact them for additional information if needed. For more details see Personnel Letter 31-61 (January 25, 1961) Revised August 1, 1974, subject "Important Changes in State Law Affecting Credit in South Carolina Retirement System for Out-of-State Service." A copy of this memorandum is on file in your department head's office. Telephone G. H. Bonnette at 656-2426 if you need a copy of the above letter.

Three comments are very important: (a) Out-of-State service claimed under current law should be completely validated and a lump-sum payment made before July 1, 1975. (b) Credit for out-of-State service will supplement a member's monthly allowance at retirement with the same annual value as service within the State. (c) The number of years of out-of-State service credited, upon retirement, may not exceed one-half of the number of years of service then completed as an employee of and within South Carolina. Military service (active duty up to six years) which has been established for retirement credit may be used as in-state creditable service to satisfy the requirement of twice the out-of-State service.

Claims after July 1, 1975 will cost more. Legislation approved on May 24, 1974 amended the retirement law to provide for significant changes for out-of-State service claims made on or after July 1, 1975. Out-of-State service may be claimed on and after July 1, 1975 on the cost basis of a lump-sum contribution equal to ten (10) per cent of a member's annual earnable compensation at the time of payment to the S. C. Retirement System for each year of out-of-State service and a proportionate part thereof for a fraction of a year, provided that the annual earnable compensation used as a basis for such special lump-sum contribution shall not be less than his earnable compensation in any one of the three preceding fiscal years.

Out-of-State service performed at any time may be claimed after June 30, 1975. (In the past and through June 30, 1975 credit could not be allowed for any out-of-State service performed after the member first became eligible for membership in the S. C. Retirement System.)

Many Clemson employees have established credit for periods of out-of-State service; some, without cost. Due to the several amendments since 1960 changing the law, it is suggested that any person who has not established credit for out-of-State service investigate the possibilities at an early date and certainly well in advance of July 1, 1975. Service which was not previously eligible may now qualify under a later amendment. The present plan will expire on June 30, 1975 and establishment of credit for out-of-State service will be more expensive after that date.

In no event shall any benefit result in duplication of benefits under this or any other retirement system for the same period of service.

Employees are invited to contact the University Personnel Division at 656-2426 if questions arise or if they can assist you with retirement problems.

Faculty Fulbright Awards

Faculty members who would like information about Fulbright-Hays awards for the 1976-77 year for research or lecturing may write to: Council for International Exchange of Scholars, National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418, and ask to receive an announcement of the awards when it is issued in the spring. July 1, 1975, is the deadline for applying for most of the awards to be given for 1976-77.

Admission and Registration

W. R. Mattox, (Director of Admissions) appeared as a panel member on "Computer Concepts for Admissions Officers" at the Meeting of the Southern Association of Collegiate Registrars and Admissions Officers in Biloxi, Miss., Feb. 3-5. Mr. Mattox also presided at a session on "Intercollegiate Athletics" at the Southern Regional Meeting of the College Entrance Examination Board in Williamsburg, Va.

Agricultural Economics and Rural Sociology

Virlyn A. Boyd (Assoc Prof) presided as Chairman of the annual meetings, Rural Sociology Section, Southern Association of Agricultural Scientists, New Orleans, La., Feb 2-5. He delivered two papers: "Historical Change in Marital and Procreative Status Projections of South Carolina Rural Youth," and "Evaluation of a Special Youth Program," the latter co-authored by Allie Funk and Gordon Lurie (Univ of Toronto).

Other papers presented at the annual meetings were:

Nelson L. Jacob (Instr), "Title V in South Carolina: Objectives, Plan of Work and Ongoing Activities," Adger B. Carroll (Coop Ext Serv) and Edward L. McLean (Assoc Prof) are co-authors.

Howard W. Ladewig (Asst Prof), "Cooperative Extension Service - Community and Resource Development."

Thales Parker (Grad Asst) and Edward L. McLean co-authored a paper, "Recent Interregional migration: South Carolina and the United States."

Agronomy and Soils

U. S. Jones (Prof) presented a paper, "Residual Effects of Dinitroaniline Herbicides Upon Yield of Non-Target Species of Wheat" at the 72nd annual meeting of the Southern Association of Agricultural Scientists in New Orleans, La., Feb. 2-5.

Biochemistry

J. H. Keffer (Pathologist, Anderson Memorial Hospital and Adj Prof of Biochem) was co-director of a continuing education program entitled, "Modern solutions to common endocrinologic problems" presented at American Society for Clinical Pathologists Educational Center, Chicago, Ill., Jan. 20-24. E. E. Baillie (Pathologist, Anderson Memorial Hospital and Adj Prof of Biochem) was a member of the faculty for the program.

Chemical Engineering

S. H. Butt, Olin Corporation, will speak on "Solar Energy Applications," April 1, at noon, in Earle Hall Auditorium.

J. C. Mullins (Assoc Prof) presented a talk to the College of Engineering at University of South Carolina on "Adsorption Studies on Carbon," Jan. 30.

Civil Engineering

Herbert W. Busching (Assoc Prof and Hd) participated in the annual meeting of the American Road Builders' Association and CONEXPO '75 in Chicago on Feb. 10-14. Dr. Busching was elected President of the Educational Division of the American Road Builders' Association for 1975.

Albert G. Law (Assoc Prof) was elected Vice President of S. C. Society of Engineers at an annual meeting on Feb. 14.

The Fifth Annual S. C. State Highway Conference was held Feb. 19-21. Participants included construction engineers from the Highway Department, industry, and government. The conference was co-sponsored by the Civil Engineering Department. The co-chairmen were J. Edwin Clark (Assoc Prof) and Oren S. Fletcher, Materials and Research Engineer for the S. C. Highway Department.

Parviz F. Rad (Assoc Prof) participated in the annual meeting of the Association of Asphalt Paving Technologists in Phoenix, Ariz., Feb. 10-13 and visited the rubberized asphalt test sections constructed by Phoenix Highway Department, Feb. 13. During the AAPT business meeting, Dr. Rad was presented with the certificate of active membership.

Parviz F. Rad is the co-author with Gilbert C. Robinson (Prof and Hd, Cer Engr) and Howard Lucas Sparrow (CE stu) of a paper, "Inherent Properties of Bricks," accepted for presentation at the annual meeting of the S. C. Academy of Science in Charleston on March 28.

College of Education

Harold F. Landrith (Dean) presented the opening speech at the USC-Coastal Carolina Conference on Evaluation at Myrtle Beach on Feb. 8.

College of Forest and Recreation Resources

William H. Davis McGregor (Dean) has been installed as Chairman of the Appalachian Section, Society of American Foresters. The three-state section (South Carolina, North Carolina, Virginia) of the national professional society has a membership of 1,450. Dean McGregor has served on the Executive Committee for the past two years.

College of Nursing

Geraldine Labecki (Dean) has been appointed to the Health Education Authority of the South Carolina Commission on Higher

Education. She serves as Chairman of the Committee on Professional Education of Health Personnel - Undergraduate and Graduate Education.

Continuing Engineering Education

The department of Electrical and Computer Engineering will sponsor a seminar on "Design of Industrial Electrical Power Systems 15 KV Class." The seminar will be held at the Clemson House on March 4. The seminar chairman is H. Vernon Poe (Assoc Prof, E&CE). The seminar is administered by Continuing Engineering Education.

Electrical and Computer Engineering

J. W. Lathrop (Prof) presented a talk, "Dinosaurs, Dodo Birds, and Early LSI," at the University of South Carolina's Engineering Seminar in Columbia on Feb. 13.

Entomology and Economic Zoology

Edwin W. King (Prof) attended the annual meeting of Technical Committee S-89, Raleigh, N.C., Jan. 28-29, on Solid Waste Disposal. He discussed progress at Clemson on biodegradation by insects and production of insect protein.

H. A. Loyacano (Asst Prof) presented a talk, "Pupae of Face Fly as Food for Channel Catfish," at the research workshop of the annual convention of Catfish Farmers of America, Jan. 30, in Little Rock, Ark.

The following papers were presented at the S. E. Branch meeting of the Entomological Society of America, Jan. 27-30 in Raleigh, N.C. by members of the department:

"Analysis of Sampling Techniques for the Pecan Weevil, Curculio caryae (Horn) by Robert P. West (Grad Res Asst) and Merle Shepard (Asst Prof).

"The Influence of Heated Effluent from Oconee Nuclear Station on Populations of Freshwater Insects in Lake Keowee, Part

II," by Joanne Edwards (Grad Asst) and R. C. Fox (Prof).

"The Influence of Heated Effluent from Oconee Nuclear Station on Populations of Freshwater Insects in Lake Keowee," by Madelaine A. Forsyth (Grad Res Asst) and R. C. Fox.

"Update - Grape Root Borer Control," by D. K. Pollet (Asst Prof).

"Peach Tree Borer Control," by D. K. Pollet.

"Insect Population Trends in Semi-Isolated Fields of Resistant and Susceptible Soybeans," by M. J. Sullivan (Asst Prof, Edisto Station), S. G. Turnipseed (Prof, Edisto Station), G. R. Carner (Asst Prof) and Van Waddill (Asst Prof, Univ of Fla).

"Efficacy of Altosid^R IGA Against the Horn Fly," by Jane Paysinger (Grad Stu) and T. R. Adkins Jr. (Prof).

"The Sectional Distribution of Simuliid Larvae," by R. M. Sutton (Grad Res Asst) and Raymond Noblet (Asst Prof).

"The Potential Effects of Blackflies on Turkey Production in the Coastal Plains and Sandhills of South Carolina," by R. M. Sutton and Raymond Noblet.

"A Distribution Survey of Black Flies (Diptera: Simuliidae) in the Coastal Plains and Sandhills of South Carolina," by David C. Arnold (Low Country Vector Control, Beaufort) and Raymond Noblet.

"Selected Aspects of the Biology of the Imported Fire Ant and the Geographical Location and Identification of the Fire Ant Species in South Carolina," by J. A. Bass (Entomologist, S. C. Dept of Health and Environmental Control) and S. B. Hays (Prof and Hd).

S. B. Hays served during 1974 as President of the S. E. Branch of the Entomological Society of America and gave his final presentation at the 49th meeting in Raleigh, N. C., Jan. 27-30.

Environmental Systems Engineering

Thomas M. Keinath (Assoc Prof) will present an invited seminar, "Model Building in Environmental Engineering," before faculty and students of the departments of Civil and Chemical Engineering at the University of Tennessee, March 3.

A. R. Abernathy (Prof) and Fred Delvecchio (Proj Admstr) participated in the regular meeting of the S. C. Board of Certification of Environmental Systems Operators on Feb. 13 in Columbia.

History

E. M. Lander Jr. (Alumni Prof) published "The Reluctant Imperialist: South Carolina, the Rio Grande, and the Mexican War," in Southwestern Historical Quarterly, Jan. 1975. He reviewed Edmund and Dorothy Smith Berkeley's John Beckley: Zealous Partisan in a Nation Divided in The Annals of the American Academy of Political and Social Science, Jan. 1975.

Interdisciplinary Studies

A. M. Weinstein (Asst Prof) received a Notice of Continuation for a grant, "D. C. Stimulation of Bone Ingrowth into Porous Al_2O_3 " from the National Institute for Dental Research in the amount of \$7,500 effective March 1, 1975, through 1976.

Mathematical Sciences

The following faculty members attended and presented papers at the Eighty-first Annual Meeting of the American Mathematical Society which was held in Washington, D. C., Jan. 21-26.

Jean Dunbar (Grad Stu) and Renu Laskar (Assoc Prof), "Finite nets of dimension d."

D. R. LaTorre (Assoc Prof), "A construction of the idempotentseparating congruences on a bisimple orthodox semigroup."

Stephen D. Comer (Visit Asst Prof), "Complete and model-complete theories of monadic algebras."

W. Robert Boland (Assoc Prof) had an invited paper published in the inaugural issue of the journal Applied Mathematics and Computation. The paper, "Critical Lengths by Numerical Integration of the Associated Riccati Equation to Singularity," was co-authored with Paul Nelson Jr. (Prof of Math at Texas Tech Univ).

Renu Laskar gave a Colloquium talk, "Finite geometries, block designs and related graphs," on Feb. 7 to the Mathematics Department, Auburn University, Auburn, Ala.

Mechanical Engineering

Y. Yang (Prof) and W. G. Hudson (Assoc Prof) co-authored a paper with C. D. Nelson (Ph.D., Mech Engr Dept, 1973), "The Design and Performance of Axially Symmetrical Contoured Wall Diffusers Employing Suction Boundary Layer Control," which was published in the Journal of Engineering for Power, Jan. 1975.

J. L. Gaddis (Assoc Prof) and C. A. Brandon (Assoc Prof) will continue their research in "Shower Water Recycle Using Hyperfiltration" under a \$50,000 extension to Feb. 1976 of a contract with NASA. This work began in Aug. 1974 under an initial contract for \$40,000.

Prof. Brandon was invited to participate in Technology Transfer Seminar, "Upgrading Textile Dyeing and Finishing," co-sponsored by the Environmental Protection Agency and the Northern Textile Association, in Boston, Mass. on Jan. 15-16.

Prof. Brandon served as Session Chairman at the annual Mid-Winter Conference on Textile Wastewater Treatment and Air Pollution Control, at Hilton Head, on Jan. 22-24. A paper, co-authored with J. J. Porter (Assoc Prof, Textiles), "Hyperfiltration Treatment and Reuse of Dye Wastewater in a Textile Plant," was presented.

Prof. Brandon presented a paper at the National Conference on Management and Disposal of Residues from Industrial Wastewater in Washington, D. C. on Feb. 3-5. The paper was co-authored by J. J. Porter and T. N. Sargent (Environmental Protection Agency).

Prof. Brandon has been elected to serve on the Executive Committee of the Textile Engineering Division of the American Society of Mechanical Engineers.

Plant Pathology and Physiology

The following papers were presented at the 62nd Annual meeting of the Southern Association of Agricultural Scientists in New Orleans, La.

J. D. Arnett (Asst Prof), "Soybean Nematode Survey Using Aerial Photography."

O. W. Barnett (Assoc Prof), "Characterization of a Virus from Iris Fulva."

G. C. Kingsland (Assoc Prof), "Overwintering of Helminthosporium maydis, Causing Southern Corn Leaf Blight, and Puccinia sorghi, Causing Corn Leaf Rust," and "Control of Helminthosporium sorokinianum Seedling Blight of Barley by Vitavax."

R. W. Miller (Asst Prof) and C. E. Drye (Grad Res Asst), "The Efficacy of Various Fungicides on the Control of Pecan Diseases."

Wesley Witcher (Prof) and L. W. Baxter (Prof), "Benomyl Uptake by Certain Gymnospermae."

E. I. Zehr (Assoc Prof), "Soil Fumigation for Control of Criconemoides xenoplax and Short-Life of Peach Trees."

E. I. Zehr, W. L. Smith (Res Plant Path, USDA), B. K. Webb, (Prof, Agri Engr), C. E. Hood (Prof, Agri Engr), C. E. Gambrell (Asst Prof, Hort) and E. T. Sims (Prof Hort), "Control of Postharvest Decay in Mechanically Harvested Peaches by Fungicide Treatment."

Recreation and Park Administration

Jack Stevenson (Prof) led a "Team Building" Workshop Jan. 28 for the Greenville County Red Cross Disaster Action Team. Dr. Stevenson also led a workshop on "Communication Skills," Feb. 6-7 in Atlanta as part of the National Recreation and Park Association Southern District Forum on Innovative Programming.

Minutes of the Educational Council Meeting, February 3, 1975

Present: Robert C. Edwards, presiding; Victor Hurst, Melford A. Wilson, Stanley G. Nicholas, Joseph B. McDevitt, Walter T. Cox, Luther P. Anderson, H. Morris Cox, C. R. Dillon, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, W. H. Davis McGregor, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis, Ray L. Thompson, Beulah R. Cheney and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of January 13, 1975 were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommended additions, deletions and changes in the curricula, when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF EDUCATION

(A) Undergraduate Course Change

AgEd 465

Program and Curriculum Development, 3 cr. (3 and 0). (Change in title and course description.)

(B) Graduate Course Change

AgEd 665

Program and Curriculum Development, 3 cr. (3 and 0). (Change in title and course description.)

II. COLLEGE OF ENGINEERING

(A) Undergraduate Course Changes

AC 410

Introduction to Digital Control, 3 cr.
(3 and 0). (Change course designation
letters -- Delete CT 410.)

E&CE 420

Power Systems Analysis I, 3 cr. (3 and
0). (Change in course description.)

E&CE 424

Power Systems Analysis II, 3 cr. (3
and 0). (Change in course description.)

(B) Graduate Course Changes

AC 610

Introduction to Digital Control, 3 cr.
(3 and 0). (Change course designation
letters -- Delete CT 610.)

E&CE 620

Power Systems Analysis I, 3 cr. (3 and
0). (Change in course description.)

E&CE 624

Power Systems Analysis II, 3 cr. (3 and
0). (Change in course description.)

III. COLLEGE OF LIBERAL ARTS

(A) Undergraduate Course Deletion

FR 304

Survey of French Literature II, 3 cr.
(3 and 0)

IV. COLLEGE OF SCIENCES

(A) New Undergraduate Course

Geol 415

Geology Practiced in Industry and
Government, 3 cr. (3 and 0)

(B) New Graduate Course

Geol 615

Geology Practiced in Industry and
Government, 3 cr. (3 and 0)

Action: Approved.

3. Change in Name of Ph.D. Program in
College of Agricultural Sciences

The Dean of the University recommended
that the proposal submitted by the

Department of Agricultural Economics and
Rural Sociology to change the name of the
Ph.D. program in Agricultural Economics
to "Applied Economics" be approved.

Action: Approved.

4. Clemson in England Program Conducted
by the College of Liberal Arts

The Dean of the University recommended
approval of the Clemson in England Program
for the Summer of 1975.

Action: Approved.

5. Summer Sessions, 1976

The Dean of the University recommended
approval of the following Summer Sessions
Calendar for 1976:

SUMMER SESSIONS 1976

(Classes meet Monday-Friday except as
indicated.) (26 Class Days Each Session)

FIRST SESSION

May 17 Monday, Registration
May 18 Tuesday, Classes begin
June 23-24 Wednesday-Thursday, Examinations

SECOND SESSION

June 28 Monday, Orientation, new
students
June 29 Tuesday, Registration
June 30 Wednesday, Classes begin
July 5 Monday, Classes suspended
July 10 Saturday, Classes meet
July 31 Saturday, Classes meet
August 4-5 Wednesday-Thursday, Examinations
August 7 Saturday, Graduation

Action: Approved.

E. N. Tyndall, Secretary

Minutes of the Undergraduate
Council Meeting, November 22, 1974

The Undergraduate Council met in the
Conference Room, E-103A Martin Hall. The
following were present: Dean Claud B.
Green (Chairman), Carolyn Briscoe, Lamar

H. Brown, Claire O. Caskey, Bingham M. Cool, Ralph K. DeHaven, James C. Fanning, Ralph W. Gilchrist, George C. Skelley, Harry E. Stewart (Visitor), Jerry Stonemetz (Student Representative), Gloria A. Tanner, Edward A. Waughn, and Kenneth N. Vickery.

The minutes of the October 25, 1974, meeting were approved as distributed.

College of Agricultural Sciences

As a matter of clarification Dean Green announced that Ent 405, Insect Pests of Ornamental Plants and Shade Trees (approved October 4, 1974) should be listed as Ent 401.

College of Architecture

The following changes in the College of Architecture Curriculum were approved:

1. Delete the minor concentration under the B.A. and B.S. programs and include the following elective policy:

Elective Policy:

30 elective credit hours are required for graduation. A minimum of 9 credits shall be selected from major study areas within the College of Architecture and a minimum of 15 credits, including 6 hours in literature* shall be selected from minor study areas outside the College. All elective courses shall be selected in consultation with the student's advisor.

2. Under the B.S. in the Building Construction program, revise the English program as follows:

6 elective credits required; 3 of which may be in oral expression and the remainder in literature*.

* To be selected from the following:
Eng 203, 204, 205, 206, 207, 208.

College of Education

The following new courses and course changes were approved:

AgEd 100
Orientation and Field Experience, 1 cr. (0 and 3)
AgEd 200
Supervised Field Experience I, 1 cr. (0 and 3)
AgEd 300
Supervised Field Experience II, 1 cr. (0 and 3)
AgEd 465
Program and Curriculum Development, 3 cr. (3 and 0)

College of Engineering

The following new courses and course changes were approved:

AC 410
Introduction to Digital Control, 3 cr. (3 and 0)
CrE 303
Materials Technology in Product Selection by Consumers, 2 cr. (2 and 0)
E&CE 201
Logic and Computing Devices, 3 cr. (3 and 0)
E&CE 202 H202
Electric Circuits I, 3 cr. (2 and 2)
E&CE 299
Digital Computation, 2 cr. (1 and 2)
E&CE 301 H301
Electric Circuits II, 3 cr. (2 and 2)
E&CE 302
Linear Control Systems, 3 cr. (3 and 0)
E&CE 308
Electronics and Electromechanics, 3 cr. (2 and 3)
E&CE 317
Electrical Engineering Problems, 2 cr. (2 and 0)
E&CE 420
Power Systems Analysis I, 3 cr. (3 and 0)
E&CE 421
Electrical Machinery, 3 cr. (2 and 2)
E&CE 424
Power Systems, Analysis II, 3 cr. (3 and 0)
E&CE 431
Digital Electronics, 3 cr. (2 and 2)
ET 375
Materials of Industry, 3 cr. (3 and 0)
Engr 330
Engineering Aspects of Energy Systems, 3 cr. (3 and 0)

Engr 455

The Role of Engineering in Technology Assessment, 3 cr. (3 and 0)

MatE 461

Elements of Metallurgy, 3 cr. (2 and 3)

MatE 462

Heat Treatment of Steels, 3 cr. (2 and 3)

MatE 463

Metallurgy of Welding and Non-Destructive Testing, 3 cr. (2 and 3)

MatE 464

Industrial Corrosion of Metals, 3 cr. (2 and 3)

MatE 465

Introduction to Plastics, 3 cr. (3 and 0)

A revised curriculum from the Department of Electrical and Computer Engineering was approved. (A copy of the approved curriculum is attached to these minutes.)

College of Industrial Management and Textile Science

The following course was approved:

IM 419

Marketing Information, 3 cr. (3 and 0)

College of Liberal Arts

The following courses and course changes were approved:

Fr 205

Elementary French Conversation and Composition, 3 cr. (3 and 0)

Fr 301

Survey of French Literature I, 3 cr. (3 and 0)

Fr 302

Survey of French Literature II, 3 cr. (3 and 0)

Fr 303

Survey of French Literature III, 3 cr. (3 and 0)

Fr 305

Intermediate French Conversation and Composition I, 3 cr. (3 and 0)

Fr 306

Intermediate French Conversation and Composition II, 3 cr. (3 and 0)

Fr 307

French Civilization, 3 cr. (3 and 0)

Fr 308

Contemporary French Culture, 3 cr. (3 and 0)

Fr 309

Introduction to French Phonetics, 3 cr. (3 and 0)

Fr 403

Twentieth Century Prose, 3 cr. (3 and 0)

Fr 404

Twentieth Century Drama, 3 cr. (3 and 0)

Fr 405

Nineteenth Century French Romanticism, 3 cr. (3 and 0)

Fr 406

Nineteenth Century French Realism, 3 cr. (3 and 0)

Fr 407

Eighteenth Century French Literature, 3 cr. (3 and 0)

Fr 408

Seventeenth Century French Drama, 3 cr. (3 and 0)

Fr 409

Advanced Grammar and Composition, 3 cr. (3 and 0)

Ger 205

Elementary German Conversation and Composition, 3 cr. (3 and 0)

Ger 305

Intermediate German Conversation and Composition, 3 cr. (3 and 0)

Span 205

Elementary Spanish Conversation and Composition, 3 cr. (3 and 0)

Span 305

Intermediate Spanish Conversation and Composition I, 3 cr. (3 and 0)

Span 306

Intermediate Spanish Conversation and Composition II, 3 cr. (3 and 0)

Span 409

Advanced Grammar and Conversation, 3 cr. (3 and 0)

Deletion of the following course was approved:

Fr 304

Survey of French Literature II, 3 cr. (3 and 0)

Approval was also given for the Clemson in England Program for the Summer of 1975.

College of Physical, Mathematical and Biological Sciences

The following courses and course changes were approved:

Bot 451
Plant Anatomy, 4 cr. (3 and 3)
Bot 455
Vascular Plant Morphology, 4 cr. (3 and 3)
Ch 310
Elementary Chemical Instrumentation, 4 cr. (2 and 6)
Geol 415
Geology Practiced in Industry and Government, 3 cr. (3 and 0)

ELECTRICAL AND COMPUTER ENGINEERING

Sophomore Year

Literature Requirement* 3 (3,0)
MATH 206
Calculus of Several Variables 4 (4,0)
PHYS 221
Thermal and Electrical Phenomena 3 (3,0)
E&CE 201
Logic and Computing Devices 3 (3,0)
Technical Elective 2
Elective 1

Total - 16

Literature Requirement* 3 (3,0)
MATH 208
Engineering Mathematics I 4 (4,0)
PHYS 222
Optics and Modern Physics 3 (3,0)
PHYS 224
Modern Physics Laboratory 1 (0,3)
E&CE 202
Electrical Circuits 3 (2,2)
Humanistic-Social Elective† 3
Elective 1

Total - 18

Junior Year

E&CE 320
Electronics I 3 (2,2)
E&CE 317
Electrical Engineering Problems 2 (2,0)
E&CE 330
Systems I 3 (3,0)
E&CE 301
Electric Circuits 3 (2,2)
E&CE 340
Electric and Magnetic Fields I 2 (2,0)

EM 211
Particle Mechanics: Statics and Dynamics 3 (3,0)
Elective 2

Total - 18

E&CE 321
Electronics II 3 (2,2)
E&CE 302
Linear Control Systems 3 (3,0)
E&CE 341
Electric and Magnetic Fields II 2 (2,0)
Humanistic-Social Elective† 3
Technical Elective+ 3
Elective 3

Total - 17

Senior Year

E&CE 420
Power Systems Analysis I 3 (3,0)
E&CE 411
Electrical Systems Workshop 2 (0,4)
E&CE 422
Electronics III 2 (2,0)
Humanistic-Social Elective† 3
Technical Electives+ 8

Total - 18

E&CE 451
System Design Workshop 2 (0,4)
E&CE 450
Systems IV 3 (3,0)
Humanistic-Social Elective† 3
Technical Electives+ 10-9

Total - 18-17

138 Total Semester Hours

*To be selected from the following:
ENGL 203, 204, 205, 206, 207, and 208.

+A minimum of six credits of technical electives must be selected from the design courses in the Electrical and Computer Engineering Department. A distribution among the engineering sciences of not less than nine credits is also required.

†A list of approved humanistic-social electives is available from the student's advisor. Any exceptions to this list must be approved in writing by the department head.

Minutes of the Graduate Council Meeting, January 10, 1975

The Graduate Council convened at 3 p.m. Friday, January 10, 1975 in the Conference Room E-103 Martin Hall. The meeting was called to order by Dean Schwartz with the following present: Dr. Brown, Dr. Dysart, Dr. Macaulay, Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Rodgers, Dr. Henricks, Professor Falk, Dr. Tanner and Dr. Maxwell.

The minutes of the December 13 and December 17, 1974, meetings were approved as distributed.

The following new course was approved:

COLLEGE OF SCIENCES

Geol 615

Geology Practiced in Industry and Government

Dean Schwartz administratively approved the following courses:

COLLEGE OF EDUCATION

AgEd 665

Program and Curriculum Development
(title and course description change)

COLLEGE OF ENGINEERING

AC 610

Introduction to Digital Control (change in course designation)

E&CE 620

Power Systems Analysis I (change in course description)

E&CE 624

Power Systems Analysis II (change in course description)

The Council made no objection and endorsed these approvals.

A proposal was submitted by the Department of Agricultural Economics to change the name of the Ph.D. program in Agricultural Economics to Applied Economics. A motion was made to approve this change, seconded and passed.

Graduate courses designated as Selected Topics and Seminars were discussed by the Council. Dean Schwartz appointed the following subcommittee to research the matter and report back to the Council: Dr. Maxwell, chairman, Dr. Mandel, Mr. Lyle, Dr. Danner and Professor Falk.

A report was made by Dr. Brown regarding the number of graduate students expressing a desire to live in a twelve month dormitory. A discussion followed and it was decided the matter should be referred to an appropriate University administrator.

A special meeting was scheduled for January 17, 1975, at 3 p.m. in E-103 Martin Hall.

A motion was made to adjourn, seconded and approved.

Minutes of the Graduate Council Meeting, January 17, 1975

The Graduate Council convened for a special meeting Friday, January 17, 1975, in the Conference Room E-103 Martin Hall. The meeting was called to order by Dean Schwartz with the following present: Dr. Brown, Dr. Dysart, Dr. Macaulay, Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Benson (for Dr. Rodgers), Dr. Henricks, Professor Falk, Dr. Tanner, and Dr. Maxwell.

The distribution on the wording and clarification of residency requirements was discussed by the Council. Dean Schwartz then suggested that the subcommittee meet again to obtain more input and attempt to meet the publication deadline for the new graduate catalog.

Dr. Mandel, chairperson of the subcommittee on Graduate Admission Requirements, discussed the recommendations from his committee. Some Council members reported responses from within their respective colleges. Dean Schwartz requested that each Council representative obtain further comments and suggestions from their departments, the results of which the committee will summarize and report back to the Council at the February meeting.

Dr. Hendricks, chairperson of the Duplication Committee, gave a report and distributed information concerning the work and progress of this committee.

Information from the Commission on Higher Education concerning policy and procedures for the new programs was distributed to

the Council. Dean Schwartz asked that comments from the administration and faculty of each college and from Council representatives be reported at the February meeting.

A motion was made, seconded and passed to adjourn.

Faculty Research Committee Proposals Funded December 6, 1974

Ireland Regnier (Visual Studies)	Pursuit of Creative Expression of Human Condition Related to the Twentieth Century Using Two-Dimensional Means	\$ 200
W. C. Capel (Sociology)	Backlash: Physician Reaction to Drug-Abuse Publicity	\$ 550
G. M. Haselton (Geology)	Surficial Geology and Wildlife Survey, Tarr Inlet Region, Glacier Bay, Alaska	\$ 2,300
H. N. Cooledge (Arch. History)	Preparation of Illustrative Material, Publication of Portugal Research	\$ 500
J. M. Melton (Languages)	German Radio Drama	\$ 1,000
R. Willingham (Languages)	Black Voices from the Antilles	\$ 800
R. R. Montanucci (Zoology)	Genetic Interaction Between Populations of <u>Gambelia</u>	\$ 1,400
B. & F. Raetsch (Education)	Reading Levels and Effectiveness of Teachers in South Carolina	\$ 500
A. D. McClare (History)	Research in France	\$ 1,000
J. L. Arbena (History)	The Loss of Panama in Colombian Thought: Its Historiographic and Policy Implications	\$ 675
H. W. Fleming (Political Science)	Reorganizing Local Government: The Hilton Head, S. C. Experience	\$ 1,400
T. Carpenter (Education)	High-Risk College Freshman - Dropouts or Graduates	\$ 300
Y. Jones (Education)	Transferring Reading Skills and Study Skills to the Content Area	\$ 300

R. D. England (Architecture)	A Study of Baroque Fresco Painting in Roman Churches	\$ 420
E. Pivorum (Zoology)	Radiotelemetry Study of the Bioenergetics or Two Free-Ranging Sciurids	\$ 550
P. B. Hamel (RPA)	Variation in an Endangered Species: Plumages and Molt of the Bachman's Warbler	\$ 400
D. C. Beer (Chemistry)	Synthesis of Carboranes from Metalloboranes and Acetylenes	\$ 2,000
J. K. Zimmerman (Biochemistry)	Purification of t-RNA ^{Phe} and Phe-t-RNA Synthetase for Use in Gel Scanning Chromatography	\$ 600
L. Park (Psychology)	Personality Factors in the Biofeedback Training	\$ 1,500
Total Granted		\$15,395
Granted from 1975 funds		\$ 1,000

Minutes of the University Library Committee Meeting, January 13, 1975

PRESENT: Hewitt D. Adams, (Chairman),
Opal S. Hipps, Gordon E. Howard, Kenneth
J. Russo, Doris R. Helms, April Baker,
J. W. Gordon Gourlay, (Secretary).

1. Minutes of the meeting of November
11 were approved.

2. Xerox Copying Facilities

Dr. Helms reported on a study, Library Copying Facilities, that she had made in the College of Sciences. The report included several recommendations among which was one that the library provide a central photocopying facility for the entire library. Mr. Gourlay said that he would distribute copies of Dr. Helms' report to members of the University Library Committee and members of the library staff who were concerned that a better method of photocopying be made available. Factors to be considered are space, equipment, personnel and cost.

3. Payment for Lost Books

Mr. Gourlay requested that the Library Committee recommend to the Administration that the following statement be added to Section 4 as Part C of Library Rules Governing Fines, Notices and Delinquent Borrowers.

4. Refunds on the return of lost books that have been paid for by borrowers

C. Library books cannot be purchased. Regardless of whether payment has been made for a book the book will remain the property of the University. Any person who falsely claims to have lost a book to simply to retain possession can be charged for illegally possessing State property.

Mr. Gourlay explained that present library policies make provision for some refund on books declared lost, paid for, and later returned but the purpose of the above statement is to discourage a borrower from declaring a book lost, paying for the book and retaining it as his personal property. Many books are extremely difficult if not impossible to replace.

Before the meeting of the Library Committee, Mr. Gourlay had referred the above statement to Admiral Joseph B. McDevitt, Vice President for Executive Affairs, who regarded it as being legally sound.

Action: The Committee approved and recommended to the Administration the addition of item C above.

4. Mr. Gourlay presented the following items of information.

A. Indexes and Abstract Journals in the Clemson University Library

Miss Myra Armistead, Documents Librarian, has completed and distributed a new edition of the above publication. This greatly expands the original and includes indexes and abstract journals that have ceased publication.

The publication is an extremely useful source for students engaged in a literature search. Under the heading of Business and Economics for example are included fourteen indexing and abstracting services relating to economics, marketing, labor relations and related topics.

B. Library Survey by National Council for Accreditation of Teacher Education.

Several members from the visitation committee came to the library to discuss library collections, budget and staffing. Information given the visitors included the following:

1) In addition to the 11,000 volumes classified under the subject heading Education by the Library of Congress there were in addition some 542,000 volumes in the building, thousands of which were related to education but not specifically classified as such.

2) The library receives regularly 208 of the 220 journals indexed in Education Index and has complete or extensive back-files of each of the titles.

3) A complete file of ERIC documents consisting of 140,000 microfiche cards, as well as all the indexes for their use were readily available.

4) Most if not all of the U. S. Department of Education studies, statistics, etc. were available adjacent to the documents office.

5) An excellent collection of encyclopedias, handbooks and similar reference books relating to education were shelved with the social sciences reference collection.

Also the professional library staff is prepared and does offer instruction to students in the College of Education on the use of particular reference books and sources of information. The instructor simply has to schedule his class for this particular library orientation.

C. Expansion of Science and Technology Area of Library

Plans are being prepared by the Architects to add a second tier of stacks to the Science and Technology area. A definite date for beginning this work has not been set but we are hopeful that while the construction is in progress reference service and access to the collections will be accomplished with a minimum inconvenience.

D. College of Architecture Library

When the move is made into the new addition to Lee Hall the library will occupy an area on two floors of the addition. Plans are underway for organizing the library and arranging the collections to provide maximum service. In general the policies will be the same as those of the Cooper Library with such modification as is necessary to meet the particular needs of this library.

5. Time of next meeting, Monday, February 10 at 3:30 p.m.

Because of possible changes in schedule of many faculty members Mr. Adams wished to know if the meeting time of the second Monday of each month is satisfactory for the members during Semester II.

J. W. Gordon Gourlay, Secretary
University Library Committee

**Minutes of the Scholarships and
Awards Committee Meeting,
January 22, 1975**

The Scholarships and Awards Committee met at 3:30 p.m. in Room E-103 Martin Hall, Chairman Corinne Sawyer presiding. Members absent: A. R. Recoulley, T. V. Wilson, Jane Carroll.

The meeting opened with the main order of business being the discussion of the prospective candidates for the R. F. Poole Alumni Scholarships. A motion was made and passed that three of the four R. F. Poole Alumni Scholarships be awarded at the present time, leaving one to be awarded at a later date. Each committee member was requested to submit a list of ten candidates, in the order of preference, to Corinne Sawyer by noon on Friday, January 24, 1975.

The next order of business was that of updating the Honors and Awards Day program. The requested updated information is to be turned in to Corinne Sawyer at the February 10, 1975, meeting of the Scholarships and Awards Committee.

The last order of business was the acceptance of the December 10, 1974, minutes as circulated.

There being no further business, the meeting was adjourned at 4:30 p.m.

Respectfully submitted,

Marvin G. Carmichael
Secretary

Calendar of Campus Events

- 1 -- Basketball: Biscayne, 8:00 p.m., Littlejohn Coliseum.
- 1 -- Student Union Movie: Scarecrow, 6:55 and 9:00 p.m., YMCA Theater, University I. D. required.
- 2 -- University Union Game Time: Bridge, 3:00 p.m., YMCA, faculty, staff and students invited.
- 2 -- University Union Free Flick: American in Paris, 8:00 p.m., YMCA Theater, admission free with I. D.
- 2 -- Intramural Sports: Swimming, men and women, entries close March 11. For further information contact the Intramural Sports Office, 656-2116.
- 2-28 Architecture Exhibition: "ASLA Awards Traveling Exhibit," 1973 award winners from the American Society of Landscape Architects Annual Competition. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 3 -- Trustee Medal Competition, 7:30 p.m., Daniel Hall Auditorium.
- 3 -- Intramural Sports: Water Polo, entries close March 7.
- 3 -- Plant Pathology Seminar: "Cell Walls, Pectic Enzymes and Pathogenesis," Dr. D. F. Bateman, Cornell University. 12:20 p.m., 222 Long Hall, open to interested persons.
- 3 -- University Union Short Course: Gardening, 7:00 p.m., YMCA, open to faculty, staff and students.

- 3 -- Speakers Bureau: NBC News correspondent Irving R. Levine, 8:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 3-5 University Union Movie: Zardoz, 7:00 and 9:00 p.m., YMCA Theater, I. D. required.
- 6 -- University Union Concert: "Masters of the Airwaves," 8:00 p.m., Tillman, Auditorium, open to the public, admission free.
- 6 -- Environmental Systems Engineering Seminar: "Legal Aspects of Environmental Responsibility," R. G. Cunningham, Olin Corporation, 4:00 p.m. 302 Rhodes, open to interested persons.
- 6-8 University Union Professional Coffee House Act: "Collins and Levine," 9:00 p.m., Gutter Coffee house, open to the public, donations requested.
- 6-8 University Union Movie: Thief Who Came To Dinner, 7:00 and 9:00 p.m., YMCA Theater, I.D. required.
- 6,7,8 Baksetball: ACC Tournament, Greensboro, North Carolina.
- 8 -- 1975 Third Annual Tiger Drill Meet, State-wide Tri-Service JROTC Event, sponsored by Military Science and Aerospace Studies Departments. 8:00 a.m., Littlejohn Coliseum, open to interested persons, admission free.
- 8 -- University Union Jam Session, 8:00 p.m., Tillman Auditorium, open to the public, admission, free.
- 9 -- University Union Game Time: Spades, 3:00 p.m., YMCA, prizes awarded, open to faculty, staff and students.
- 9 -- University Union Free Flick: Goodbye Mr. Chips, 8:00 p.m., YMCA Theater, I.D. required, admission free.
- 10 -- Russian Film: And Quiet Flows the Don, sponsored by the Department of Languages. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.
- 10 -- Intramural Sports: Volleyball, men and women, entries close March 21.
- 10 -- Plant Pathology Seminar: "Entomophthora, Fungal Parasites of Insects," Dr. Gerald Carner. 12:20 p.m., 222 Long Hall, open to interested persons.
- 10-13 University Union Movie: The Terrorists, 7:10 and 9:00 p.m., YMCA Theater, I. D. required.
- 11 -- Chamber Music Series: A solo recital by pianist Lillian Harder in a program of music by Chopin, Beethoven, Brahms and Bartok. 8:00 p.m., Daniel Hall Auditorium, open to the public, admission free.
- 11 -- History Film: The Informer by John Ford, sponsored by the History Club, discussion led by Dr. A. D. McClare. 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 12 -- University Union Fine Arts Film: The Bicycle Thief, 8:00 p.m., Brackett Auditorium, free with I. D.

- 12 -- University Union Tournament in billiards or table tennis, 7:00 p.m., YMCA, open to faculty, staff and students.
- 13 -- Environmental Systems Engineering Seminar: "Area Wide Waste Treatment Management Planning," Heinz Russelman, Toledo Metropolitan Area Council of Governments. 4:00 p.m., 302 Rhodes, open to interested persons.
- 13 -- Woman's Club: "Remember When," 3:15 p.m., Clemson House.
- 14 -- Intramural Sports: Soccer, entries close March 21.
- 14 -- Spring Holidays begin after last class.

WEPR Highlights

South Carolina Education Radio Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI, 89.3-FM, Charleston.

- 5&12 Film Fifteen: Violence in the Media, (5) "The Treatment of Violence in the Movies," by Saris, (12) "Violence Brings a Message," by Peckinpah with Ross Cornwell and Bob Austin. Wednesdays at 7:30 p.m.
- 7&14 Tillman Forum: Reading Forum Excerpts, (7) "Decoding and Meaning: The Basic Essentials," (14) "Maximizing Individualization Through Audio-Visual Innovation for Reading Instruction." Fridays at 11:00 a.m.
- 2&10 Shakespeare Scene-By-Scene: (3) Macbeth, conclusion, (10) Romeo and Juliet, with Dr. Ray Barfield, Clemson English Department. Mondays at 1:00 p.m.
- 4&11 Political Science: (4) "Impressions of a Freshman Congressman," Rep. Butler Derrick, (11) "The Political Left in Latin America," with Dr. Ed Coulter, Clemson Political Science Department. Tuesdays at 8:00 p.m., Wednesdays at 11:00 a.m.
- 6&13 Poetry Today: (6) "Lancaster poet Gary Ligi," (13) "e. e. cummings," with Dr. Robert Hill, Clemson English Department. Thursdays at 12:00 noon.
(6) "Laurence Lieberman," with live interview, (13) "Anne Sexton," with readings by Doris Calhoun, Thursdays at 7:30 p.m.
- 6&13 Food For Thought: (6) "Knowledge Means Savings," (13) "Nutritional Labeling," with Marie Hindman, Clemson Extension Service. Thursdays at 8:00 p.m.
- 1,7, 8&14 Majors And Minors: (1) "The Problem of Reputation," (7) "Modern Ecstasies," (8) "...And a Tiny, Tiny Scherzo," (14) "Music for the Best of All Possible Worlds," with Dr. Ray Barfield. Fridays at 2:00 p.m., Saturdays at 10:30 p.m.
- 3&10 Consumer Corner: (3) Notes from the National Conference on "Consumer Education for 4-H and You," with Veronica Carmack and Joyce Jenkins, Clemson Home Economics, (10) "Fashion 75," with Ursula Holahan and Judy Kline. Mondays at 12:00 noon.
- 5&8 Word-Go-Round: "S. C. Low Country Dialect," with Mr. J. M. Eleazer, hosted by Herman and Mary Felder. Wednesdays at 11:30 a.m., Saturdays at 6:30 p.m.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 14

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

March 15, 1975

MAR 13 1975

Record Number Participate In 1974 Alumni Loyalty Fund

A record 5,277 alumni participated in the 1974 Alumni Loyalty Fund that provided \$264,551 to assist educational programs at Clemson University.

An additional \$4,465 was given to the Parents Fund by 134 non-alumni parents of students.

Other items funded were a University contingency fund, alumni records and services, and the University's permanent endowment fund.

Clemson's Alumni Loyalty Fund, begun in 1956, has provided \$4.6 million to assist with the across-the-board educational program of the University.

"We are proud of the consistent annual response of our alumni to this means of advancing Clemson's educational capability," said Lawrence Starkey, alumni national president from Atlanta, Ga. "Clemson's approximately 20 per cent alumni participation in the annual giving program compares with a figure of about 18 per cent nationally and a 14 per cent figure at state-aided institutions."

The largest unrestricted gift in 1974 was \$5,000 from an alumnus who wished to remain anonymous.

The Alumni National Council allocated the following amounts from unrestricted gifts: \$23,000 for 16 R. F. Poole Alumni

Scholarships; \$17,000 for alumni professorships; \$30,000 for visiting professorships; \$7,500 for faculty development; \$7,000 for the Graduate School; \$4,000 for student programs; and \$1,000 for the Alumni Master Teacher Award to be presented at Commencement.



SCHOLARSHIP ESTABLISHED – President R.C. Edwards and Mrs. James Beasley Monroe add a plaque designating a memorial scholarship established by the Monroe family. The \$10,000 unrestricted scholarship honors the late Prof. Monroe who graduated from Clemson in 1915 and taught at Clemson from 1934 until his retirement in 1959. He was the department head of Agricultural Education at the time of his retirement. Each of the Monroe's three children are Clemson graduates.

"Violence in the Media" Subject of Special Educational Radio Series

"Violence in the Media" is the subject of a special series of programs being broadcast statewide by the S. C. Educational Radio Network.

The 30-minute specials, produced at the network's satellite studio at Clemson, are aired Wednesdays at 7:30 p.m. on stations WEPR, Greenville (90.1 FM) and WSCI, Charleston (89.3 FM).

Hosts of the series are Ross Cornwell of Clemson's Public Relations Department and Bob Austin of the University Communications Center. Both are radio film critics who have done graduate research in communications.

Producer of the series is Lily-Roland Hall, with production assistance from Connie Willingham, also of the Communications Center.

The radio presentations are part of the second annual College of Liberal Arts Lecture Series at Clemson this semester. The series brings to South Carolina experts in diverse fields ranging from film and psychology to criminology. It is co-sponsored by the S. C. Committee for the Humanities and the National Endowment for the Humanities.

Topics and guests on the program are:

March 19, "Determining the Effects of TV Violence" by psychologist Robert Liebert, who served as principal researcher for the U. S. Surgeon General's Advisory Committee on Television.

March 26, "Mass Media Effects: Some General Issues in the Regulation of Aggression" by psychologist Seymour Feshbach, internationally recognized authority on aggression.

April 2, "A Field Experiment in TV and Antisocial Behavior" by Stanley Milgram, who is well-known for several original experimental techniques and his research on cities and crowds.

Applications Now Being Accepted for Schillito-Hammett Scholarship

The South Carolina State Employees' Association is now accepting applications for the Schillito - Hammett Scholarship to be awarded for the 1975-76 academic year. This scholarship was established to honor Mrs. Cornelia Schillito and Mr. Julius E. Hammett, recipients of the 1969 Outstanding State Employee Awards.

One scholarship in the amount of \$500 is to be awarded to a dependent son or daughter of a member of the South Carolina State Employees Association.

The following criteria will be utilized in the selection of the scholarship recipients:

- (1) The recipient will have completed at least one academic year (30 semester hours or 45 quarter hours) in a four-year, accredited college or university with a minimum 2.00 grade point ratio.
- (2) The recipient shall be pursuing a baccalaureate degree at a four-year college or university in South Carolina.
- (3) The recipient shall be eligible for the \$500 Scholarship this academic year only.
- (4) If at the end of a semester or quarter, the status of the recipient changes, the application may be re-evaluated.
- (5) Prime consideration for the award of the scholarship will be the academic record and the financial need of the applicant.
- (6) The deadline date for filing application is May 1, 1975.

Students interested in applying for this scholarship may receive applications by dropping by the Financial Aid Office located in 106 Sikes or by contacting Mr. Larry Ellis, South Carolina State Employees' Association, P. O. Box 5206, Columbia, S. C., 29250.

Accounting and Finance

Richard V. Calvasina (Asst Prof) was a session critic for the paper, "The Need for a Cash Flow Model," delivered at the 1975 Southeastern AIDS 5th annual meeting at the University of South Carolina, Feb. 20.

Jimmy D. Sheriff (Asst Prof) was elected President of the South Carolina Association of Accounting Instructors. The election was in conjunction with the Association's winter meeting held on the campus of Francis Marion College.

Agricultural Engineering

The following papers were presented at the Southeast Region Meeting of the American Society of Agricultural Engineers in New Orleans, La., Feb. 2-5:

"Multiple-pick Cucumber Harvester in South Carolina," by C. E. Hood, (Prof) and co-authored by R. A. Coleman (former Grad Asst) and B. K. Webb (prof).

"Nutrient Management of Caged Poultry Waste," by C. L. Barth (Assoc Prof), co-authored by D. T. Hill (Asst Ag Engr).

"Economic Evaluation of Swine Waste Management," by C. L. Barth, co-authored by G. H. Aull (former Grad Asst) and D. T. Hill.

Also at this meeting, the South Carolina State Section of ASAE won first place in the Publicity and Public Relations category based on documentation of activities prepared by J. B. Davis (Asst Ag Engr) and Ken Kernodle (Ag Engr with Duke Power Co).

College of Industrial Management and Textile Science

T. D. Efland (Prof, Assoc Dean and Dir of Textile Research) visited Malaysia, Singapore and Indonesia for three weeks in December to visit textile plants spinning American cotton. He served as a cotton spinning technologist to advise on problems of cotton spinning.

Prof. Efland was an invited participant at the Cotton Council International meeting in Phoenix, Ariz., Feb. 1. A panel discussion followed on Cotton Technical Services Activities in the Far East.

Economics

Holley Ulbrich (Assoc Prof) and Lowell Nordquist (former Instr) have an article, "The Allocation of the Cost of Crime" in a forthcoming volume entitled Readings in Correctional Economics, published under the auspices of the American Bar Association.

Electrical and Computer Engineering

L. T. Fitch (Assoc Prof) and R. W. Snelsire (Assoc Prof) published an article, "A High School Visitation Program," in Engineering Education, Vol. 65, No. 4, January 1975.

Elementary and Secondary Education

Oliver R. Lumpkin (Assoc Prof), Thomas H. Parry (Assoc Prof) and R. Kenneth Peden (Asst Prof) presented a panel, "Getting a Handle on Student Data: A System for Organizing Student Information," as part of the Thirteenth Annual Invitational Conference on Measurement in Education held at the University of Tennessee, Knoxville, Dec. 6-7

Food Science

Recent publications of J. J. Jen (Assoc Prof) - "Spectral quality of light and the ripening characteristics of tomato fruit," HortScience 9, 548-549 (1974). "Characterization of pslyphenol oxidase in peaches grown in the Southeast," HortScience 9, 590-591 (1974).

History

Hewitt D. Adams (Asst Prof) has an article, "Mao Tse-tung' Revolution Continues?" in the fall issue of the Journal of Political Science.

Horticulture

W. L. Ogle (Prof) served as Chairman of the Horticultural Crops Section of the 28th Annual Southern Weed Science Society held at Memphis, Tenn., Jan. 21-24, and presented a paper, "Evaluation of Azide as a Soil Fumigant for Vegetables."

The following papers were presented in New Orleans, Feb. 2-4, at the annual meeting of the Southern Association of Agricultural Scientists:

"The Effects of Three Two-Week Periods of Lighting Easter Lily Bulbs During Refrigeration on Plant Growth and Flowering," by Alton J. Pertuit Jr. (Asst Prof).

"A Potential New Chemical Thinner for Peaches," by C. E. Gambrell Jr. (Asst Prof), G. E. Stembridge (Prof) and B. E. Hallman (Grad Stu).

"Control of Postharvest Decay in Mechanically Harvested Peaches by Fungicide Treatments," by Eldon I. Zehr (Assoc Prof, Plant Path), Wilson L. Smith Jr. (USDA), B. K. Webb (Prof, Agr Engr), C. E. Hood (Prof, Agr Engr), C. E. Gambrell Jr., and E. T. Sims Jr. (Prof).

"A System for Measuring Color Changes in Senescing Snapdragon (Antirrhinum majus L.) Flowers," John A. Floyd Jr. (Grad Stu) and E. T. Sims Jr.

"Effect of a New Harvesting System on 'Florida MH-1' and 'Walter' Tomatoes," E. T. Sims Jr., C. E. Hood, B. K. Webb, and T. L. Jones (Asst Prof).

"The Effects of Extracts of Ascophyllum nodosum L. on Helianthus annuus L. 'Peredorik' in Sand Culture," A. R. Kingman (Instr).

"Evaluation of Several Soil Amendments for Use in Putting Green Soil Mixtures," A. R. Mazur (Asst Prof) and R. A. McDaniel (Grad Stu).

"The Effect of Some Plant Growth Regulators on Japanese Holly," A. J. Lewis III (Instr).

"Growth - Environment Relationships of Winter Wheat," J. R. Haun (Prof).

"An Evaluation of Plug-Mix Seeding in South Carolina," T. L. Jones, W. P. Cook (Asst Prof), and C. E. Hood.

E. T. Sims Jr. was acting chairman and presided at the Postharvest Horticulture Section of the Southern Region, American Society for Horticultural Science at the New Orleans meetings. G. E. Stembridge (Prof) was chairman of the Pomology Section and presided at two sessions of this section.

Industrial Management

Kornel Terplan (Visit Post Doctoral Fellow) presented a paper titled, "Measurement for Improving Reliability" at the third annual Computer Science Conference sponsored by the ACM in Washington, D. C., Feb. 18-20.

At the January meeting of the Greenville Chapter of the Society for Advancement of Management, C. O. Shuler (Assoc Prof) moderated a panel consisting of five business persons and Richard Calvasina (Asst Prof, Acct and Finance) discussing "Open Account Credit Policies and Practices." This meeting was open to the public and a number of area business firms participated.

On March 3, Robert D. Landel (Assoc Prof of Business Administration and Dir of the Doctoral Program, Colgate-Darden Graduate School of Business Administration) presented a seminar, "Commodity Market Dynamics," as part of the Industrial Management Graduate Seminar Series. The seminar was held in the College of Industrial Management and Textile Science.

Languages

Russell Willingham (Instr) participated in a panel discussion on Black History Week. The discussion was presented on the South Carolina Educational Radio Network; WEPR in Greenville and WSCI in Charleston on Feb. 12.

Mathematical Sciences

James L. Flatt (Assoc Prof) served as a member of the State Committee to evaluate the teacher training program at Furman University on Feb. 11-12.

Austin J. Lemoine (Asst Prof) has had the following article published recently: "Approximations for a service system with non-independent interarrival times," written jointly with D. Granot and F. Granot. Operations Research, Vol. 23 (1975).

Andrew Sobczyk (Martin Prof) gave a talk on Feb. 24, "Combinatorial Problems and Applications," to the students and faculty of the Mathematics Department, West Georgia College, Carrollton, Ga.

Mechanical Engineering

C. S. Rudisill (Assoc Prof) received a one year research grant of \$23, 472 from NASA. The subject of the research effort is "Active Control Optimization Techniques."

C. S. Rudisill and Y. Y. Chu (Grad Stu) authored a paper, "Numerical Methods for Evaluating the Derivatives of Eigenvalues and Eigenvectors," which has been accepted for publication in the AIAA Journal.

Physics and Astronomy

A. L. Laskar (Assoc Prof) presented a colloquium talk, "Clarge and Mass Transport in Ionic Solids" at the Physics Department, Auburn University, Auburn, Ala., Feb. 7.

"Spacetime Symmetries and the Complexion of the Electromagnetic Field," by John R. Ray (Assoc Prof) and Everette L. Thompson (Grad Stu) was published in Journal of Mathematical Physics, Feb. 1975, p. 345.

Plant Pathology and Physiology

N. D. Camper (Assoc Prof) attended the Southern Weed Science Society Meeting in Memphis, Tenn., Jan. 21-24. He chaired one section on physiological aspects of weed control. He served on the Student Interest Committee, the Placement Committee, and the Terminology Committee.

Prof. Camper also attended the Weed Society of America meeting in Washington, D. C., Feb. 4-7 and was elected vice-chairman of the Physiology Section.

Wesley Witcher (Prof) presented an invitational paper on the canker diseases of hardwoods at the Southeastern Forest Disease Workshop and the annual meeting of the S-100 regional committee at Gulfport, Miss., Feb. 6-7. J. D. Arnett (Asst Prof) also attended the meeting.

Cotton Incorporated has provided a grant of \$10,000 for the project "Herbicide - Soil Microorganism Interactions" for the period Oct. 31, 1974 - June 30, 1975. N. D. Camper is project leader.

Political Science

Horace W. Fleming (Asst Prof) participated on a panel at the Jan. 21 meeting of the South Carolina Chapter of the American Society for Public Administration in Columbia on "Home Rule in South Carolina."

Walton H. Owens (Assoc Prof) newly appointed Chairman of the Public Affairs Committee of the S. C. Mental Health Association, presented that organization's legislative program to the S. C. Congressional Delegation in Columbia on Jan. 18.

Zoology

W. K. Willard (Assoc Prof) has recently published an article in the Journal of Theoretical Biology, "Comparative Radio-sensitivity in the Class Insecta."

Minutes of the Faculty Senate Meeting, January 14, 1975

I. Call to order and approval of the minutes

The meeting was called to order by President Dillon at 4:15 p.m. in Olin Hall Auditorium. The minutes of December 12 were approved after minor corrections were made. Senators absent: Ezell, Grove and Roberts.

II. Report by Visitors

Mr. James L. Strom, Director of Planning and Corporate Relations, discussed gifts and gift distribution. He pointed out that Clemson University's Development Programs are committed to providing a financial base which will assure that all educational programs will be characterized by and recognized for their excellence. He reminded the faculty that basically Clemson is a tax-supported institution and that inflation affects the purchasing power of the dollar and recession might make fewer dollars available. Today more private dollars are essential if Clemson is to maintain excellence. He suggested that the faculty solicit gifts from industry, foundations or individuals. He explained that gifts do not have to be in the form of cash, but can be "in-kind" such as buildings, real estate, securities, equipment, services, supplies, etc. Donors should be made aware of the fact that their gifts can be either unrestricted, or restricted to a department or for a specific purpose. In answer to a question on the establishment of a value on an in-kind gift for tax purposes, Mr. Strom stated that the donor establishes the value of the gift.

Mr. L. C. Hamilton, a member of the Board of Directors of the S. C. State Employees' Association at Clemson, discussed the SCSEA

and explained its objectives and goals. He stated that the organization promotes the welfare of state employees and pointed out that it is the recognized voice of state employees and represents state employees before the Legislature. He urged faculty members to join and support SCSEA because only by maintaining a high percentage of membership can recognition, prestige and influence be expected to continue. He outlined previous legislative accomplishments and revealed the following current legislative objectives: a 12% salary increase, the adoption of cost-of-living increments, retirement after 30 years of service or at age 60, a reduction from 15 to 10 the number of years required for vesting in the retirement system, an increase in the travel allowance to \$25 per day in state and \$40 per day out of state, the development of training programs and the adoption of a State Personnel Act. Other Board of Directors' members at Clemson are Mr. Herbert Campbell and Mrs. Mary W. Mungall.

III. Committee Reports

- A. Admissions and Scholarship - No report.
- B. Policy - No report.
- C. Research - No report.
- D. Welfare

Chairman Baron reported that his committee had examined the problem of the University maintaining an emergency vehicle. An investigation revealed that it would cost at least \$60,000 per year to maintain an emergency vehicle equipped and manned by trained personnel as prescribed by State law. The small number of true emergencies (4 in 1973) precludes this investment, particularly when satisfactory service is being rendered by the Central Rescue Unit.

The Welfare Committee recommends that the issue not be given further consideration.

E. Other Reports

President Dillon requested that Ad Hoc Committees present a report on their activities at the March meeting.

Senator Maxwell, Senate Representative to the Graduate Council, reported that the Council plans a special meeting to consider raising the admission requirements for graduate students, residency requirements for Clemson University employees and duplication of courses.

IV. President's Report

1. The Educational Council met on January 13. President Edwards discussed the increased demand for veterinary science training throughout the U. S. and indicated that it appears likely that Clemson will cooperate with the University of Georgia in the teaching of veterinary science courses.

Decals will be placed on the doors of all state vehicles for identification purposes.

Adm. McDevitt gave clarification on the Buckley Amendment. Students have the right to examine their personal records at an institution. They can challenge the accuracy of records, but they cannot challenge the validity of the grade recorded. Persons may request copies of records at their own expense. Both records and lists of types of records maintained must be provided. Third parties may not ask for copies of records of any persons. It is recommended that only minimum records be kept. Records which are in the sole possession of a professor are not subject to inspection provided that these records are not accessible or revealed to other persons except a substitute. Letters of recommendation are subject to inspection. There is no chance for a libel suit for a subjective evaluation if written in a fair and objective manner, i.e., it contained no flippant remarks. Letters of recommendation written prior to January 1, 1975 need not be disclosed. Students may waive the right to see their recommendation, but this may not be required of the student. Unsuccessful applicants may not see their record packets.

2. Dean Hurst has asked that faculty members of the Bookstore Committee be appointed by the Dean of Students rather than by the Dean of the University as the

bookstore comes under the authority of the Dean of Students.

3. A letter from Senator Holt regarding recommendation of AAUP on faculty termination due to financial exigencies was read and forwarded to Dean Hurst.

4. In order that all committees and councils have a common starting point, it is suggested that Faculty Senate appointments to councils and committees be made at the May Senate meeting.

5. Dean Hurst's committee for study of Faculty Manual revisions consists of the following individuals:

Dean H. E. Vogle, Assist. Dean Herbert Brantley, Dr. Arline Duvall, Col. E. H. McCarter, Prof. Ralph Knowland, Dr. Earl T. Carpenter, Adm. J. B. McDevitt, President of Faculty Senate ex officio.

6. Dr. J. E. Hair has released a directive relative to emergency medical service on campus for employees.

7. Dr. John P. McKelvey, Head of Department of Physics, forwarded a proposal for a minor change in grading policy which may forestall grade inflation. It was referred to the Admission and Scholarship Committee.

8. President Edwards has given tentative approval to hooding of doctoral candidates by the Dean of the Graduate School pending opinions from graduating seniors through the Dean of Undergraduate studies.

V. Old Business

The revised Faculty Manual was distributed to members of the Senate. It consists of 174 pages. It is requested that the Senate reconvene at 4:15 p.m. on January 21 to approve the revisions. If sections are to be revised, Senators are requested to bring with them sufficient copies of double spaced copy for distribution to the Senate. If these are approved, they can be substituted in the revised manual.

One Senator expressed concern over the new University logo in that it is gaudy and in bad taste.

In answer to a question on the annual leave policy, Dr. Dillon announced that it is his understanding that the policy is effective as of January 1, 1975.

VI. New Business

A senator expressed the opinion that "red tape" is hampering activities and it is getting difficult to get the job done. Line positions are hampering the Academic Deans to the extent that they are becoming ineffective. Trying to get a new course approved is a major undertaking. A discussion ensued on the relationship of the Graduate Council and the Graduate Dean and policy making for the Graduate School. It was suggested that someone look at the organization of the University and see if it can be reorganized professionally. The problem was referred to the Welfare Committee.

President Dillon mentioned that he had received a copy of the letter from Dr. W. M. Epps, Head of the Department of Plant Pathology, to Senator Witcher concerning the policy on insurance coverage for privately owned vehicles being used for University business. A meeting will be held to discuss the problem, the results of which will be reported back to the Senate and to Dr. Epps.

VII. Adjourn

The meeting adjourned at 6:04 p.m.

Respectfully submitted,

T. R. Adkins Jr.
Secretary

Minutes of the University Audio-Visual Committee Meeting, January 14, 1975

Present: W. H. Durham, Opal S. Hipps, M. W. Jutras, D. D. Moyle, P. K. Owens Jr., E. L. Wall, Samuel Wang and Betty P. Watkins.

Dr. Jutras opened the meeting and asked for approval of the minutes of the December 3, 1974, meeting which were corrected and approved.

Mr. Durham reported that, as of January 14, 1975, three firms indicated that they would participate in the A-V Equipment Show, February 25 & 26, 1975. With regard to the repair service, Mr. Durham stated that this service is operational with student help and records are being kept.

Dr. Ashworth, in his correspondence received from Dr. Henningson, indicated no hardware programs in federal grants. Dr. Henningson recommended: submission of a grant request to (1) the building fund for the Continuing Education Center (The possibilities of this source of funds were discussed and reports pertaining to the C. E. C. heard resulting in an elimination of a grant request to this group), (2) Appalachian Regional Commission, (3) some industry sympathetic to Clemson, or (4) to a foundation. Dr. Ashworth suggested that the University place an item in its budget in conjunction with a grant application. Perhaps, if a grant be found for equipment, the University could fund the software.

Dr. Moyle moved that since software development is the responsibility of specific disciplines and/or colleges, the Committee would not take an active roll in software development but serve only in an advisory and coordinating capacity. Seconded by Prof. Wang and passed.

Dr. Jutras informed the committee that Mr. Jack Wilson, Director of Purchasing, was most receptive to the suggestion of advisory service from the Communications Center regarding A-V equipment. Mr. Durham will work with him on details and report back to the A-V Committee.

Approved Feb. 4, 1975.

Respectfully submitted,

J. C. Hubbard, Jr.,
Secretary

Minutes of the University Research Council Meeting, January 24, 1975

The University Research Council met at 1:15 p.m. in the Conference Room of E-103

Martin Hall. Dean Schwartz called the meeting to order. Those present were: Dr. R. W. Henningson, Dr. Lloyd H. Blanton, Dr. O. John Jacobus, Dr. Robert W. McLellan, Dr. Thomas M. Keinath for Dr. Billy L. Edge, Dr. D. W. Lyons, Dr. Merle Shepard, Dr. A. S. Tombes, Mr. John C. Zimmerman and Mr. G. S. Ragan.

The minutes of the November 22, 1974, Council meeting were approved as distributed.

Dr. Blanton presented a report from the University Research Council Committee considering copyright policies. The Committee met twice and at the second meeting generated a draft of a questionnaire for assessing copyright policy need for Council consideration (copy appended to these minutes). It was recommended to the Committee that information from other institutions would prove helpful in developing a definite policy.

The University Research Council Committee considering University patent policies met on January 14, 1975, and elected Dr. D. W. Lyons as chairman of this Committee. Dr. Lyons read the report of the Committee which is appended to these minutes. Dean Schwartz pointed out that many institutions are not satisfied with Research Corporation. A discussion of patent policies based on economic feasibility and scientific merit followed. The two major considerations in any patent policy are the rights of the University and the rights of the individual.

Dr. Jacobus indicated no report from the University Research Council Committee considering duplication in research.

The Copyright Policy Committee was authorized to proceed with a limited survey of selected University areas. The report of the Patent Policy Committee was accepted and the Committee disbanded.

During the open discussion period the effect, on research, of the annual June-July moratorium on purchase orders was discussed. It was noted that University procedures provide for handling necessary purchase orders and that the problems mentioned may be a result of college

implementation of the University procedures. The time lag in ordering and receiving chemicals introduced by central receiving procedures was broached. It was suggested that a current listing of chemicals ordered and received on campus would facilitate research problems encountered for this reason and such a list should be feasible utilizing present procedures and facilities. It was suggested that the Director of Purchasing be invited to meet with Council and that a meeting be devoted to this subject.

Council was reminded that the meeting agenda is composed of items submitted to the Office of University Research by the Council members.

The next Council meeting is scheduled for Friday, February 28, 1975, at 1:15 p.m.

A motion was made, seconded and passed to adjourn the meeting.

Minutes of the Scholarships and Awards Committee Meeting, February 10, 1975

The Scholarships and Awards Committee met at 3:30 p.m. in Room E103 Martin Hall, Chairman Corinne Sawyer presiding. Member absent: J. L. Stonemetz.

The first order of business was the selection of the fourth recipient of the R. F. Poole Alumni Scholarship. Dean K. N. Vickery provided background information concerning the prospective candidates. The fourth recipient was selected. The announcement of four recipients will be made at a later date.

A list of medals and scholarships with the respective account number was distributed by Col. Bloss for use by the Colleges. Additions or deletions to this list were requested.

A third item of business was a request by Ellen Jean Graef to utilize some portion of her fourth year R. F. Poole Scholarship during the up-coming summer session. A motion was made and passed that Ellen Jean Graef be allowed to utilize her R. F. Poole Scholarship during the 1975 summer session. Dr. Sawyer requested, on

behalf of the Scholarships and Awards Committee, that Col. Bloss check the accounting procedures involved to determine what amounts Ms. Graef will be allowed to receive, including the amounts she received during the past summer sessions and the present academic year.

The next order of business was the selection of the Algernon Sydney Sullivan Award student recipients, the basis being the spiritual values of leadership. Deans Delony and Coakley each made three recommendations providing background information on each. Two students, one female and one male, were selected. The two recipients will be announced at the Honors and Awards Day Program.

Col. Bloss was recognized to provide some background information and make nomina-

tions for the Borden Scholarship Award, the Copeland Award and the American Association of University Women's Award. The Committee voted to accept the candidates as nominated, the recipients to be announced on Honors and Awards Day.

The last order of business was the correction of the December 10, 1974, minutes in that A. R. Recoulley was represented by a proxy vote at that meeting. With this correction the minutes were approved.

There being no further business, the meeting was adjourned at 4:30 p.m.

Respectfully submitted,

Marvin G. Carmichael
Secretary

Calendar of Campus Events

- 18-19 IM&TS Seminar: "Fundamentals of Texturing and Heat Setting," led by Dr. E. A. Vaughn. Sponsored by the Office of Professional Development, Sirrine Hall, fee charged.
- 20 -- IM&TS Short Course: "Double Knitting," led by Dr. E. A. Vaughn. Sponsored by the Office of Professional Development, Sirrine Hall, fee charged.
- 20-23 Egg and Art Exhibition sponsored by the Department of Poultry Science.
10:00 a.m. - 6:00 p.m. Thursday through Saturday, 1:00 p.m. - 6:00 p.m. Sunday,
Poole Agricultural Center, open to the public, admission free.
- 24 -- Classes Resume
- 24 -- Plant Pathology Seminar: "A Research Proposal," with Mr. Andrew Nyczepir, Clemson University. 12:20 p.m., 222 Long Hall, open to interested persons.
- 25 -- 1975 Continuing Education begins. Courses, lectures, workshops planned for adults on six Tuesday nights (March 25, April 1, 8, 15, 22, 29) on the Clemson campus. For information on specific courses, contact Mrs. John Bregger, 214 Godfrey Hall, 654-2139. Open to the public, no entrance requirements, no examinations, nominal fee charged.
- 25 -- IM&TS Seminar: "Labor Relations Law," led by Dr. B. R. Skelton. Sponsored by the Office of Professional Development, Sirrine Hall, fee charged.
- 25-26 IM&TS Seminar: "A Seminar on Management by Objectives," led by Dr. E. E. Burch. Sponsored by the Office of Professional Development, Sirrine Hall, fee charged.

- 27 -- Easter Egg Hunt sponsored by the Flying Tiger Angel Flight. 4:00 - 5:30 p.m., Y-Beach, open to children of all teaching faculty ages 10 and under.
- 27 -- IM&TS Workshop: "Arbitration of Grievances," led by Dr. B. R. Skelton. Sponsored by the Office of Professional Development, Sirrine Hall, fee charged.
- 27 -- Environmental Systems Engineering Seminar: "Current Roadblocks to a Totally Closed Pulp and Paper Mill," by Hartwell Majors and Ron Wilson, Weyerhaeuser Pulp and Paper Company. 4:00 p.m., 302 Rhodes, open to interested persons.
- 28 -- AFROTC Dining-In: A formal dinner hosted by the Arnold Air Society. 6:30 p.m. Clemson House, open to Air Force ROTC cadets, tickets available from Arnold Air Society members.
- 31 -- French Film: Waiting for Godot, sponsored by the Language Department. 7:30 p.m., 315 Daniel Hall, open to the public, admission free.

WEPR Highlights

South Carolina Education Radio Network programs produced at Clemson are aired by WEPR 90.1-FM, Greenville and WSCI, 89.3-FM, Charleston.

- 15,21, Majors and Minors: (15) "Austere Beauties," (21) "The Harpsichord Centuries," 22,28, (22) "Apt to Break into a March," (28) "An Easter Oratorio," (29) "Serenades for Tonto." Hosted by Dr. Ray Barfield, Fridays at 2:00 p.m., Saturdays at 10:30 p.m.
- 17 Consumer Corner: "Notes from the Southeast Regional Conference on Home Management and Consumer Education," with Veronica Carmack and Joyce Jenkins. Monday at 12:00 noon.
- 17,24, Shakespeare Scene-By-Scene: Romeo and Juliet continued, with Dr. Ray Barfield, 31 Clemson English Department. Mondays at 1:00 p.m.
- 18&25 Political Science: (18) "Political Commentary," (25) "Student Views of the United Nations," with members of the Clemson Model U. N. Organization, hosted by Dr. Ed Coulter, Clemson Political Science Department. Tuesdays at 8:00 p.m., Wednesdays at 11:00 a.m.
- 19,22 Word-Go-Round: "Biblical Related Words," with Dr. George Whitaker, Clemson Methodist Church, hosted by Herman and Mary Felder. Wednesdays at 11:30 a.m., Saturdays at 6:30 p.m.
- 19&26 Film Fifteen: Violence in the Media, (19) "Determining the Effects of TV Violence," by psychologist Robert M. Liebert, (26) "Mass Media Effects: Some General Issues in the Regulation of Aggression," by psychologist Seymour Feshbach, hosted by Ross Cornwell and Bob Austin. Wednesdays at 7:30 p.m.
- 20&27 Poetry Today: (20) "Skip Eisinger," (27) "Sylvia Plath," at 12:00 noon. (20) "T. S. Eliot," (27) "John Berryman," at 7:30 p.m. Hosted by Dr. Robert Hill, Clemson English Department.

- 20&27 Food For Thought: (20) "The World Food Situation," with Dr. Bill Robinson, Clemson Agricultural Economics Department, (27) "Family Food Plans." Hosted by Marie Hindman, Clemson Extension Service. Thursdays at 8:00 p.m.
- 21&28 Tillman Forum: Reading Forum Excerpts, (21) "Reality and Potential in Secondary Reading," by Robert A. Palmatier, (28) "Content Reading: Method, Material and Measurement," by Joseph S. Nemeth. Fridays at 11:00 a.m.
- 30 Easter Special: The Easter portion of Handel's Messiah is presented in a two-hour performance by the Clemson Chorale. 3:30 p.m.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 15

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

APP 2 1975

April 1, 1975

BIOCHEMISTRY

James K. Zimmerman (Asst Prof) has received a continuation of his grant from the Department of Health, Education and Welfare. The grant, "Studies on Pyruvate Kinase Using Direct Gel Scanning," is worth over \$21,000.

Gary L. Powell (Assoc Prof) gave a lecture, "Control of Lipid Biosynthesis," at the Department of Biology, Western Carolina University, March 6.

BOTANY

Clyde J. Umphlett (Prof and Hd) was a member of a visiting team of scientists evaluating the status and progress of the Biology Department of Georgia College at Milledgeville.

T. M. McInnis Jr. (Asst Prof) has published the following papers:

"An aryl-B-D glucosidase of the aquatic fungus Lagenidium giganteum, a parasite of mosquito larvae." Arch. fur Mikrobiol. 101: 343-350. 1974, (with A. Domnas, UNC-C). "Biochemistry of mosquito infection: Preliminary studies of biochemical change in Culex pipiens quinquefasciatus following infection with Lagenidium giganteum. Jour. Invertebr. Pathology 24: 293-304. 1974, (with A. Domnas and P. E. Giebel, UNC-C).

CHEMISTRY

H. Keith McDowell (Asst Prof) presented a seminar, "The History and Future of Theoretical Chemistry," at Hampden-Sydney College, Jan. 31.

Don C. Beer (Asst Prof) presented a seminar, "The Boron Hydrides: A Challenge to Theories of Bonding," at North Georgia College, Feb. 3.

O. John Jacobus (Assoc Prof) presented seminars at Mississippi State University, Feb. 12 and at University of Alabama, Feb. 13, entitled: "Applications of Electroanalytical Techniques to Neurochemical Problems."

John W. Huffman (Prof) presented a seminar, "A Short History of Organic Chemistry," at Bellarmine-Ursuline College, Feb. 14.

Joe F. Allen (Assoc Prof) was elected to the Board of Directors of the International Audio-Tutorial Congress at the winter meeting held in San Francisco, Nov. 1974.

Prof. Allen presented an invited paper, "The Audio-Tutorial Method of Instruction," at the LaGrange College Symposium on Individualized Instruction, LaGrange, Ga., Feb. 28.

CIVIL ENGINEERING

Parviz F. Rad (Asst Prof) is the author of the paper, "Much Evaluates Machines," published in the January issue of Tunnels and Tunnelling. Dr. Rad had his article titled, "A Simple Technique for Determining Relative Strength of Aggregates," approved for publication in the ASTM Journal of Testing and Evaluation.

CONTINUING ENGINEERING EDUCATION

The Industrial Energy Conservation Seminar, the fourth in a series of energy conservation seminars, will be held April 9, 1975, at the Clemson House. This

seminar is designed to present methods which have been found to be practical in the conservation of energy and to present new methods which are expected to be useful in the future as processes are designed with energy conservation a major consideration. The seminar chairman is W. B. Reuland (Assoc Prof) Systems Engineering. This seminar is presented by Continuing Engineering Education and sponsored by Systems Engineering Program, Clemson University and S. C. Energy Management Office.

A Southern Conference on Application of Solar Equipment for Residences - Industry - Agriculture will be held April 10-11, 1975, at the Clemson House. The conference is intended to promote and acquaint potential users of solar energy with solar equipment. The afternoon session, Friday, April 11 from 1:30 - 2:30 is open to the public. Conference Chairman is J. E. Bennett (Assoc Prof) Electrical & Computer Engineering. This seminar is presented by Continuing Engineering Education and sponsored by Electrical and Computer Engineering, Agricultural Engineering, Housing Institute, Continuing Engineering Education, Cooperative Extension Service and Rural Housing Research Unit, USDA, all of Clemson University.

The Seventh Annual International Biomaterials Symposium will be held April 26-30, 1975, at the Clemson House and in the auditorium of Daniel Hall. This seventh annual symposium is designed to bring together basic and clinical researchers in reconstructive, plastic and maxillo-facial surgery, in cardiovascular, orthopedic and oral surgery, in biomaterials research and engineering, as well as general surgeons and dentists and biological and materials scientists interested and active in the area of biomaterials. Frank W. Cooke (Assoc Prof & Hd) DIS will serve as Symposium Chairman. Session chairmen will include: J. J. Klawitter (Assoc Prof) DIS, A. M. Weinstein (Assoc Prof) DIS, and D. D. Moyle (Asst Prof) DIS as Symposium Co-Editor. Technical papers will be presented by Prof. Klawitter, A. Anand (Assoc Prof) Civil Engineering, Prof. Weinstein, R. Adams (Grad Stu) DIS, B. W. Sauer (Assoc Prof) DIS, and T. W. Cleveland

(Grad Stu) DIS. The symposium is administered by Continuing Engineering Education and sponsored and hosted by Division of Interdisciplinary Studies, College of Engineering and co-sponsored by National Institute for Dental Research and Div. of Continuing Education, Medical University of South Carolina.

DIVISION OF INTERDISCIPLINARY STUDIES

Members of the Division of Interdisciplinary Studies presented and authored four papers at the Orthopaedic Research Society's 21st annual meeting held in San Francisco from Feb. 27 - March 1:

"Mechanical Changes in the Knee Post Meniscectomy," W. Krause (Grad Stu), M. H. Pope (Univ of Vermont), R. Johnson (Univ of Vermont), A. M. Weinstein (Asst Prof) and D. Wilder (Univ of Vermont).

"Structure and Properties of Subchondral Cancellous Bone," J. J. Klawitter (Assoc Prof), A. M. Weinstein and T. Cleveland (Grad Stu).

"Structure-Properties Relationships for Porous High Density Polyethylene," A. M. Weinstein, J. J. Klawitter, B. W. Sauer (Assoc Prof), and J. G. Bagwell (Grad Stu).

"The Structure of Tissue Growing into Porous Bone Implants: Tissue Attachment," M. Spector (MUSC), W. R. Flemming (Grad Stu), and B. W. Sauer.

On Honors and Awards Day the Bioengineering faculty of the College of Engineering will give the Austin T. Moore Award to that student who has shown outstanding achievement in academic and research endeavors in bioengineering. The award is made possible by a donation from the Moore Orthopedic Clinic, Columbia, in honor of its founder, Austin T. Moore, M. D. and consists of a cash award and a citation. In addition, each year's awardee's name is engraved on a plaque located in the lobby of the Rhodes Engineering Research Center.

EDUCATIONAL SERVICES

D. Henry Pate (Coordinator) and Roger Woodberry (Wilson County Technical Institute) published a paper, "The Relationship of Parental Marital Status to Measures of the Cognitive Vocational Maturity of Delinquents" in Educational and Psychological Measurement, Volume XXXIV, No. 4, Winter 1974.

ELEMENTARY AND SECONDARY EDUCATION

W. Owens Corder (Assoc Prof) served as program chairman for the State Council for Exceptional Children held in Charleston, March 7-8. He was also elected President of the State CEC Federation for the 1975-76 school session.

James E. Matthews (Prof) conducted a workshop on "teacher evaluation" for the meeting of the South Carolina Association on Children under Six held at Furman University on March 7.

ENGLISH

John L. Idol (Assoc Prof) published "Thomas Wolfe's 'A Note on Experts'" and reviewed Martha Stephens, The Question of Flannery O'Connor in the fall issue of Studies in Short Fiction.

Jerome Mandel (Assoc Prof) was a participant on the program of the Southeastern Medieval Conference held at the University of Tennessee, Knoxville, March 7-8.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

The 20th Annual Meeting of the S. C. Entomological Society was held March 4-5 at the Holiday Inn in Clemson. The following papers were presented:

"Efficacy of Altosid^R IGR Against the Horn Fly," by Jane Paysinger (Grad Stu) and T. R. Adkins Jr. (Prof).

"Pyrethrin Adulticide Systems for Control of Synanthropic Flies Breeding in Caged Layer Poultry Houses," by J. G. Kissam (Prof).

"A Growth Reduction Study of the Pine Cinaran Aphid Complex in South Carolina," by K. H. Griffith (former Grad Res Asst) and R. C. Fox (Prof).

"The Effect of Selected Soybean Pesticides on Germination of Entomophthora gammae Conidia," by Gary G. Newman (Grad Res Asst) and G. R. Carner (Asst Prof).

"The Cow: A Biological Instrument for converting Grass to Maggots - And a Use for the Maggots," by Edwin W. King (Prof).

"A Comparative Study of Triglycerides in Mosquitoes Susceptible and Resistant to Avian Malaria," by Geraldine W. Wicker (former Grad Stu), Raymond Noblet (Asst Prof), and A. B. Weathersby (Univ of Ga).

"Mexican Bean Beetle Resistance in Advanced Soybean Lines," by M. J. Sullivan (Asst Prof, Edisto Station) and S. G. Turnipseed (Prof, Edisto Station).

R. C. Fox prepared and presented a slide-tape program, "Our War with the Insects," to be made available for popular use, especially high school classes.

S. G. Turnipseed was elected to the Secretary-Treasurer's position for a three-year term at the Southeastern Branch Entomological Society meeting in Raleigh, N. C., Jan. 27-30. T. R. Adkins Jr. was elected as a Director-at-Large to the Executive Committee at this meeting.

T. E. Skelton (Assoc Prof) participated in Pest Control Operator's School on Feb. 5-6 by presenting a period of instruction on "Pesticide Formulations."

H. A. Loyacano (Asst Prof) had two papers published in Proceedings of the Southeastern Association of Game and Fish Commissioners; "Effects of Chinese Waterchestnut in Floating Rafts on Production of Channel Catfish in Pools," with R. B. Grosvenor (former Grad Stu) and "Parasites from Fish Collected in Proximity to Catfish Cages," with E. C. Aldridge (senior author, former Grad Stu).

Prof. Loyacano also published "A List of Freshwater Fishes of South Carolina," as South Carolina Agriculture Experiment Station Bulletin No. 580.

Prof. Loyacano presented an invited lecture, "Fish Culture Techniques," to the biology seminar at The Citadel, Charleston, Feb. 25.

Merle Shepard (Asst Prof) spent from Feb. 7-21 in Brazil. His visit was mostly confined to the states of Rio Grande do Sul and Parana for assessment of insect damage on potentially resistant soybean plants which are part of the soybean insect pest management project at Clemson University. Additional ecological data were gathered including assessment of populations of insects in several areas, some of which were subjected to insecticide abuse.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof and Hd) was invited by Environment Canada (Canadian IPA) to review their overall manpower and training programs for water quality control personnel.

FOOD SCIENCE

J. J. Jen (Assoc Prof), I. M. Ibrahim (former Assoc Prof), C. S. Graham (Grad Res Asst) and W. M. McCollum (former Res Technol) had published in the Journal of Food Science 40, 436-437 (1975), an article, "Amino acid composition of proteins in peach alcohol insoluble solids."

R. L. Thomas (Grad Res Asst) presented a paper co-authored by J. J. Jen, "Light intensity, light quality and carotenoid biosynthesis in ripening tomatoes," at the 72nd meeting of SAAS, Food Science and Technology Section, Feb. 2-5, New Orleans, La.

GEOLOGY

Robert D. Hatcher Jr. (Assoc Prof) conducted a seminar and field trip on the geology of the Blue Ridge, for the personnel of the U. S. Forest Service, University of Georgia and State of North Carolina, at the Forest Service Coweeta Hydrologic Laboratory near Franklin, N.C., Jan. 27.

Prof. Hatcher also presented invited lectures on different aspects of Southern Appalachian tectonics to faculty and students at Appalachian State University, Jan. 16 and Eastern Kentucky University, Feb. 14.

George M. Haselton (Assoc Prof) presented the following lectures to members of the Science Club and Geology staff and students at Catawba College, Salisbury, N. C., Jan. 30: "Deglaciation Across Canada from 9,000 to 6,000 years ago and the Catastrophic Breakup of Glacial Ice in Hudson Bay," "Proterozoic Rocks in Richmond Gulf, Quebec," and "The Glacial History of Tarr Inlet, Alaska."

Villard S. Griffin Jr. (Assoc Prof) recently published a N.A.S.A. approved article, "SKYLAB Photograph of the South Carolina Piedmont: A preliminary analysis," in Geologic Notes, v. 19, pp. 24-30.

HISTORY

William F. Steirer Jr. (Asst Prof) presented "Losers of the War of Words: The Loyalist Press in the American Revolution" and Robert S. Lambert (Prof) presented "Loyalism in Backcountry South Carolina" at the Conference on American Loyalism in St. Augustine, Fla., Feb. 8.

HORTICULTURE

A. R. Mazur (Asst Prof) published "Physical Properties of Hardwood Bark Growth Media" in HortScience, Vol. 10, pp. 30-33, February 1975.

LANGUAGES

Dionysia, a drama competition for foreign language students, from colleges throughout South Carolina, sponsored by the Department of Languages at Clemson, has become a yearly event on the Campus. This year Dionysia '75 will take place on April 11-12. Activities will begin on Friday, April 11, at 4:00 p.m. with an open house in Strode Tower Lounge, Second Floor. At 7:00 p.m. in Daniel Hall Auditorium, Dr. Harold Clurman, director, critic, author and actor, will lecture on "The World of the Theater," and will

examine the relationship of the theater to the currents of world thought. Immediately following the lecture, at 8:15 p.m. in Daniel Hall Auditorium, the Clemson Players will present The Lesson and The Bald Soprano by Eugene Ionesco in English. Courtesy tickets for this performance will be available from the Director of Dionysia '75, Dr. Samuel C. King, of the Department of Languages. Free performances of The Lesson and The Bald Soprano may also be seen at 8:00 p.m. in Daniel Hall Auditorium on April 15-20. Free reserved seats for these performances will be available from the Clemson Players and will be held until 7:45 each night.

All day Saturday, April 12, the visiting students will compete in selections from various foreign plays. The event will be concluded with an awards ceremony in Daniel Hall Auditorium. Everyone interested in drama or foreign languages is welcome to attend all of these activities. For further information, please contact the Dionysia Committee, Department of Languages, 201 Strode Tower, or phone 656-3393.

MATHEMATICAL SCIENCES

John K. Luedeman (Assoc Prof) has had the following article published recently: "The Generalized translational Hull of a Semigroup," Semigroup Forum, Vol. 9(1975) p. 76.

John Kenelly (Prof and Hd) representing Clemson University and the Mathematical Association of America as part of the Visiting Lecturer's program, presented a colloquium lecture entitled "Optimal Returns in a Constrained Environment" to the faculty and students of Newberry College on February 28.

D. R. LaTorre (Assoc Prof) has published a paper, "On the construction of bisimple orthodox semigroups," in the Semigroup Forum 9 (1975), p. 372.

Austin J. Lemoine (Asst Prof) has had the following article published recently: "On Two Stationary Distributions for the Stable GI/G/1 Queue," Journal of Applied

Probability, Vol. 11, No. 4 (December 1974) p. 849.

Robert Boland (Assoc Prof) has published an article, "Critical lengths by numerical integration of the associated Riccati equation to singularity," (with P. Nelson Jr.) in Appl. Math. Comp., Vol. 1 (1975), p. 67.

John C. Peck (Assoc Prof) presented a talk, "Health Management Information Systems" to the Department of Mathematics at Presbyterian College in Clinton, South Carolina on March 12.

Prof. Peck also served as Co-Chairman of a session entitled "Information Systems" and presented an invited paper entitled "Cooperative Development of Information Systems, the Academic Community/A Resource for Health Providers" at the meeting of the Association for Advancement of Medical Instrumentation, in Boston, Massachusetts on March 18.

PHYSICS AND ASTRONOMY

Beverly B. Bookmyer (Assoc Prof) has been awarded an International Travel grant by the National Science Foundation.

Carlton W. Ulbrich (Assoc Prof) presented a talk entitled, "Formation of Clouds and Thunderstorms" to students at S. C. State College at Orangeburg on Feb. 21.

POLITICAL SCIENCE

Harold E. Albert (Assoc Prof) has published a review of "Smoking and Politics: Policymaking and the Federal Bureaucracy," (2nd ed.), Lee A. Fritschler, in Choice, March 1975 (Vol. 12, No. 1). Professor Albert also has published a review of WATERGATE: IMPLICATIONS FOR RESPONSIBLE GOVERNMENT, Frederick C. Mosher, et. al., in Choice, March 1975 (Vol. 12, No. 1).

Charles W. Dunn (Assoc Prof and Hd) is the editor of The Future of the American Presidency, published by General Learning Press (Feb. 1975). Dr. Dunn spoke to the S. C. City-County Management Association

concerning "University Resources Available to the Public Administrator," on March 7 in Charleston.

Prof. Dunn has been appointed by Governor James Edwards to serve on the S. C. Community Development Advisory Commission. Prof. Dunn has been nominated for membership in the Center for the Study of the Presidency (membership by invitation only) which is chartered by the Board of Regents of the State of New York. Prof. Dunn addressed a National League of Cities seminar for city councilmen in Atlanta on March 19, speaking on the topic, "How to Get Things Done in City Council."

PSYCHOLOGY

L. Berger (Asst Prof) was a discussant for "Organizational Effects Upon Employee Performance" Southeastern Association of Decision Makers Convention, Feb. 21, in Columbia.

Prof. Berger also presented "Supervision and Handling of Personnel" South Carolina State Highway Conference, Feb. 19 in Clemson and led a Seminar in Leadership Development, Department of Professional Development, Clemson University, Feb. 13.

Prof. Berger has been appointed as a committee member to review the Standards for providers of Psychological Services for Division Two (Teaching of Psychology) of the American Psychological Association.

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Prof) was Chairman for the Board Meeting of the American Camping Association, Southern Region, in Washington, D. C., Feb. 21. This meeting was held in conjunction with the Biannual ACA National Regional Convention. Dr. Stevenson also served as co-director of a "Camp and Park Maintenance Workshop," March 3-6, serving 31 persons from four states. The RPA department, the American Camping Association, and the S. C. United Methodist Camp sponsored the workshop which was held at the latter facility above Traveler's Rest.

C. R. White (Asst Prof) addressed participants at the South Carolina Social Welfare Forum annual meeting in Columbia, March 6-7. His topic was, "Stand Up for Children Through Interaction with Older Adults."

UNIVERSITY BOOKSTORE COMMITTEE REPORT

The University Bookstore Committee was organized on February 5, 1975, with the following members: Professors J. F. Allen, J. W. Barnhill, J. A. Chisman, R. K. Dehaven; Bookstore Manager - J. C. Cureton (nonvoting); undergraduate representatives - S. Bruce and J. McKenzie; and graduate representative - J. Zimmerman, with Dean W. T. Cox serving an advisory, non-voting role.

Professor Chisman was elected chairman and J. Zimmerman secretary.

The charge given this committee by Dean Cox was to consider any and all matters (fiscal, policy and otherwise) and to advise the administration on any changes which the committee feels are required to make the Bookstore a more serving and efficient enterprise.

The Bookstore Manager has been asked to prepare a document (1) stating clearly and explicitly what the Bookstore operating policies are and (2) giving financial statements for the past few years. The document will be made available to all interested parties.

Studies are under way to poll the faculty and students concerning their evaluation and comments on the Bookstore operation. In this regard, the committee is soliciting faculty response to the following problems: (1) continuation of faculty and graduate student discounts, (2) inclusion of all employees in the discount plan, (3) discontinuance of credit to faculty, (4) faculty paying for desk copies acquired from the Bookstore, with a refund given for the publisher's copy when received, (5) submission of book lists a month earlier (by September 15) in the fall to facilitate ordering alternatives for out-of-print or out-of-stock books and (6) determining what supplies

should be stocked. Comments on these and any other Bookstore problems should be addressed to Jim Chisman, 25 Riggs Hall.

Minutes of The Administration-Faculty-Student Council Meeting, January 7, 1975

Chairman Robert Merrill called the regular meeting of the Clemson University Administration-Faculty-Student Council to order at 4:05 p.m. in the Board Room of Sikes Hall.

The following were present, in addition to Chairman Merrill: Frank Qualls, Rodney Sprott, Kenneth Carpenter, E. H. McCarter, M. N. Lomax, Joseph McDevitt, George Moore, Secretary.

ACTION: The minutes of the meeting of December 3, 1974, were approved as distributed, and for publication.

The Council members, having previously received copies of various policies relative to University practices and procedures, began the task of reviewing them by subject and category.

Once the various divisions of the University have had the opportunity to review those policies basic to their operations, the Council proposes to consider a format for publication and methods for updating.

The next AFSC meeting was scheduled for Tuesday, February 4 at 4:00 p.m. in the Sikes Hall Board Room. The call to adjourn came at 5:10 p.m.

George Moore
Secretary

Minutes of The Administration-Faculty-Student Council Meeting, March 4, 1975

Chairman Robert Merrill called the regular meeting of the Clemson University Administration-Faculty-Student Council to order at 4:10 p.m. in Conference Room 300 of Sikes Hall.

The following were present in addition to the Chairman: Frank Qualls, Thomas E. Skelton Jr., Ronald Dillon, Kenneth

Carpenter, Lewis Fitch, E. H. McCarter, M. N. Lomax, and Secretary George Moore, constituting a quorum.

ACTION: The minutes of the meeting of Tuesday, January 7, 1975, were approved as distributed and thus for publication.

Before resuming old business, the Chairman asked for the privilege of entertaining new business. There being no objection, Mr. Merrill discussed a subject that was a recent topic of concern for the Graduate Student Association (GSA). It was in regard to the shortage of off-campus, non-university owned, housing units. The GSA is exploring, in this instance through AFSC, the possibility of some type of centralized up-to-date multiple listing of housing units available in the Clemson area. The housing office was mentioned as the central location. Mr. Lomax summarized background of the University's experience with maintaining such listings; the complexities in keeping such compilations current, etc.; the phasing out of the service.

Mr. Merrill, rather than asking for any recommendations on the Council's part, indicated he would recount the discussion to the GSA.

In a discussion of the purposes of AFSC, there was a consensus that the Council might best serve on an "on call basis" rather than meeting on the regular schedule that it now does.

ACTION: The Council voted unanimously to recommend that AFSC continue to be organized as a University Council, but meet "on call" at such times necessary within the spirit and intent of the charge by which it was established by President Edwards in October 1968; the Council meet annually, upon proper appointment, for organizational purposes and election of officers, in order to be prepared for called meetings. The Council also recommended that the Chairman consult with Admiral McDevitt and the President to determine whether current business is representative of the charge of the Committee.

ACTION: In unanimous consent, the Council voted to recommend, in view of the limited time left this year (new rotation date is April 15), that the policies review project be continued by the Executive Vice President by referring the policies to the proper officers and directors for review. Once a compiled restatement of policies and procedures is formulated, it is recommended that distribution be made to appropriate levels, to include the Student Senate President, Student Body President, Graduate School Association, the Faculty Senate President and deans and department heads.

Future meetings shall be held on the basis of action taken on the above recommendation. There being no further business, the Council adjourned sine die at 5:20 p.m.

George Moore
Secretary

Minutes of the Graduate Council Meeting, February 14, 1975

The Graduate Council met at 3 p.m. Friday, February 14, 1975, in the Conference Room of E-103 Martin Hall. The meeting was called to order by Dean Schwartz. The following were present: Dr. Brown, Dr. Edge (for Dr. Dysart), Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Rodgers, Dr. Henricks, Professor Falk and Dr. Tanner.

The minutes of the January 10 and January 17, 1975, meetings were approved as distributed.

The following course changes were approved:

COLLEGE OF ENGINEERING

E&CE 621

Electrical Machinery (change in format, description, theory and lab hours)

E&CE 631

Digital Electronics (change in format, description, theory and lab hours, replaces E&CE 633)

COLLEGE OF SCIENCES

Bot 651

Plant Anatomy (change in credit hours, theory and lab hours)

Bot 655

Vascular Plant Morphology (change in credit hours and theory hours)

The following courses were tabled pending a University-wide duplication study now being made:

COLLEGE OF SCIENCES

Math 702

Modern Mathematics for Elementary School Teachers - Number Systems II

Math 725

Combinatorial Mathematics for Teachers

Math 730

Modern Geometry for Teachers

Math 772

Numerical Methods in Secondary Mathematics II

A motion was made, seconded and approved that these four Mathematics courses be resubmitted for approval along with complete information on the reorganization of the 700 level series in Mathematical Sciences.

Dean Schwartz administratively approved the following course changes:

COLLEGE OF SCIENCES

Math 701

Modern Mathematics for Elementary School Teachers - Number Systems I (change in course title)

Math 703

Modern Mathematics for Elementary School Teachers - Geometry (change in course title and description)

Math 705

Modern Mathematics for Elementary School Teachers - Algebra, Probability, and Statistics (change in course title and description)

Math 732

Projective Geometry (change in course description)

Math 771

Numerical Methods in Secondary Mathematics I (change in course title and description)

Math 781

History of Mathematics (change in course description)

Math 783

Theory of Numbers (change in course description)

The following new courses and changes were distributed to Council with a request that mail ballots be returned by Friday, February 21, 1975, in order to meet a publication deadline for the 1975-76 Clemson University Announcements.

COLLEGE OF AGRICULTURAL SCIENCES

Agron 604

Soils and Land Use

COLLEGE OF ARCHITECTURE

CRP 621

Urban Social Structure (change in hours)

CRP 672

Implementation of the Local Planning Process (change in course description and title)

COLLEGE OF ENGINEERING

SE 890

Special Topics in Systems Engineering (change in hours)

SE 895

Systems Engineering Seminar

COLLEGE OF SCIENCES

Bioch 606

Physiological Chemistry (change in hours)

Bioch 608

Physiological Chemistry Laboratory

A motion was made, seconded and passed to change the Masters and Ph.D. degrees in Mathematics to Masters and Ph.D. degrees in Mathematical Sciences.

The Graduate Advisory Committee for Mr. George Perry Sawyer, a Ph.D. student in Plant Pathology, petitioned the Council to allow Mr. Sawyer to graduate in May 1975 without a B average. After discus-

sion, a motion was made, seconded, and passed with one opposing vote that Mr. Sawyer not be allowed to graduate with less than a B average and that he be so notified.

The Council considered a request from Mr. Richard H. Singleton for readmission to Graduate School. Mr. Singleton was dismissed from Graduate School on October 8, 1973, by virtue of receiving a grade of F in a course he failed to complete, even though he was duly notified of the Graduate School policy concerning the grade of I (Incomplete). A motion was made, seconded, and approved with two dissenting votes that he be allowed to take courses as a non-degree seeking student and that Mr. Singleton's eligibility to take graduate courses be reviewed and approved on a semester by semester basis.

The wording of residency requirements for the Master of Science, Master of Arts, and Doctor of Philosophy degrees for the new graduate catalog was discussed. Editorial changes were made and discussion will continue at the next meeting. Dr. Edge distributed residency requirements as recommended by the College of Engineering.

Dr. Mandel, chairman of the subcommittee on Graduate Admission Requirements, gave a progress report and stated that he had received a response from only one college regarding this matter. Dean Schwartz requested Council members to obtain this information from their respective colleges.

Dr. Henricks distributed information and gave a progress report on the work of the Duplication Committee.

Dean Schwartz stated the need for a policy statement on the chairmanship of advisory committees for Ph.D. students. Council was requested to come prepared to discuss this item at the next meeting.

A motion was made, seconded, and passed to adjourn.

Minutes of The University Library
Committee Meeting, February 10, 1975

1. PRESENT: Hewitt D. Adams, (Chairman), Furman R. Gray, Ursula A. Holahan, Gordon E. Howard, Edward F. Olive, Kenneth J. Russo, Tah Teh Yang, Doris R. Helms, and J. W. Gordon Gourlay, (Secretary).

Mr. Daniel J. Boyer, Chairman, Building Planning Committee Robert Muldrow Cooper Library and members of his committee were present.

Mr. Adams announced that, because of his responsibility as chairman of the University Library Committee, President Edwards had appointed him as a member of Mr. Boyer's committee.

2. Minutes of the meeting of January 13 were approved.

3. Mr. Adams announced that the addition to Library Rules Governing Fines, Notices, and Delinquent and Privileged Borrowers had been approved by the Administration. This addition becomes Part C of Section 4 of the regulations and reads

Library books cannot be purchased. Regardless of whether payment has been made for a book the book will remain the property of the University. Any person who falsely claims to have lost a book simply to retain possession can be charged for illegally possessing state property.

4. Mr. Gourlay reported that the librarians are studying the memorandum and report of Dr. Helms concerning the photocopying of materials from journals. This report has been distributed to members of the Committee. He indicated that the librarians approved of some type of centralized copying service but did not wish to make any changes until after the construction on the top floor has been completed.

Mr. Gourlay presented some working rules concerning special charges for reference books and periodicals that had been recommended by the Divisions until such time as changes were made in the photocopying policies. The Committee endorsed

the policy with the one addition that the latest issue of a periodical must remain in the Library.

5. Mr. Daniel J. Boyer reviewed the work that has to be accomplished in double decking the stacks on the top floor of the library. He pointed out that the expansion had been planned prior to the construction of the building. He talked about details of the plan for expansion and showed perspectives which had been prepared by the architects, Lyles, Bisset, Carlyle and Wolff.

He discussed the construction necessary which not only involved double decking the stacks but concerned engineering factors such as air conditioning, lighting the lower tier and installation of a second elevator.

He gave the tentative dates for the completion of the project as prepared by the architects and pointed out that problems in securing materials, etc., could cause delay in the work.

OUTLINE SCHEDULE OF WORK

CLEMSON LIBRARY ADDITION 9C-319
December 30, 1974

Mechanical & Electrical Plans Completed -
February 1, 1975

Stack & Architectural Renovation Plans
Completed - February 1, 1975

Advertise Stacks for Bids - March 1, 1975

Receive Stack Bids - April 1, 1975

Start Preparatory Work - May 15, 1975

Start Mechanical & Electrical Work - May
15, 1975

Start Stack Contract - June 1, 1975

Complete All Work - August 15, 1975

Mr. Gourlay pointed out that during the period of construction books and periodicals will be moved to the basement of the library and that the members of the staff

of the Science, Technology and Agriculture Division will have their desks there.

The new expansion will provide for the addition of some 200,000 volumes in science, technology and agriculture.

6. Safety in the Library

Mr. Gourlay read a memorandum signed by several members of the library staff concerning safety of library personnel in the building, particularly in the basement area. He had discussed the memorandum with Mr. Weeden. Mr. Weeden had come to the library and discussed personal safety with staff members who were interested. Copies of the memorandum would be distributed to members of the University Library Committee.

7. Time of next meeting: Monday, March 10, at 3:30 p.m.

J. W. Gordon Gourlay, Secretary
University Library Committee.

Minutes of the University Schedule Committee Meeting, February 6, 1975

The Schedule Committee met in Room 131, Brackett Hall with the following present:

K. N. Vickery, Chairman, W. L. Ball, J. H. Bond, L. H. Brown, C. C. Davis, R. C. Grant, R. C. Harshman, L. L. Henry, J. C. Hubbard, W. D. Hudson, J. H. Higgins, S. B. Ingram, A. B. Laughling, W. P. Merritt, F. L. Roberts, E. B. Rogers, C. R. Smith, P. A. Steiner.

Guests present were:

Mr. J. L. Strom, Director, Planning and Corporate Relations and Mr. Kenneth H. Cooper, Team Chief, Division of Administrative Programming Services.

1976 Summer Sessions calendars as approved by the Educational Council were announced. Summer Session 1975 classes will be suspended Friday, July 4, but will meet Saturday, July 12. Summer session 1976 classes will be suspended Monday, July 5, but will meet Saturday, July 10.

The Schedule calendar was accepted as presented.

The contemplated shift of some departments to new or different facilities and the impact on classroom schedules was discussed. It was agreed that little could be done in the assignment of classrooms for the departments in question pending a firm completion date for Barre Hall and information of priorities in the renovation of McAdams Hall.

The zone concept of assignment of classrooms and laboratories was discussed and J. L. Strom responded to several questions. The higher the level of scheduling i.e., university wide versus department wide, the fewer classrooms that are required. He explained that the source of the 45 hours per week scheduling was CHE which has established nine hours per day, five days per week as a basis for computing utilization with 34 hours of the 45 hours being a desirable fill rate. It was pointed out that the zone concept could be the forerunner of the university-wide computerization of classroom scheduling. After this had been discussed, Mr. Strom explained that possibility did not enter into his study at this time and that many variables such as special-purpose rooms, unscheduled use of auditoriums, and custodial responsibilities would be considerations to be resolved before proceeding further. One member indicated that a list of names and telephone numbers of key individuals responsible for buildings would greatly facilitate scheduling of rooms. Mr. Fleming indicated he would provide such a list.

Mr. Kenneth H. Cooper, Division of Administrative Programming Services was introduced and spoke briefly about tentative plans for on-line registration which could be implemented when equipment is available.

Mr. Vickery discussed freshmen enrollment prospects for the fall and trends indicated in the monthly summary of applicants and acceptances which is distributed to the members of the Schedule Committee as well as to colleges and departments.

January 15 -- HEW and CHE data submitted as of this date

January 15 -- All reports due back from departments (Professor's name, time, room change)

February 6 -- Schedule Committee Meeting
Schedule Booklet materials to departments

February 20 -- Schedule Booklet materials back from departments

February 27 -- Proof back to departments

March 6 -- Schedule Booklet to printers

March 10 -- Exam Schedule published

April 14-18 -- Pre-registration

April 21 -- Editing run

April 23 -- Planning report to departments

April 28 -- Exams begin

May 9 -- Commencement

May 12 -- First preliminary scheduling run

Minutes of The Educational Council Meeting, March 3, 1975

Present: Robert C. Edwards, presiding;
Victor Hurst, Melford A. Wilson, Joseph B. McDevitt, Walter T. Cox, Luther P. Anderson, H. Morris Cox, C. R. Dillon, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, A. E. Schwartz, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis, and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of February 3, 1975, were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean of the University recommended additions,

deletions and changes in the curricula, when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Course

Agron 404

Soils and Land Use, 2 cr. (1 and 3)

(B) New Graduate Course

Agron 604

Soils and Land Use, 2 cr. (1 and 3)

II. COLLEGE OF ARCHITECTURE

(A) Undergraduate Course Changes

CRP 421

Urban Social Structure, 1-3 cr. (1-3 and 0). Change in hours only.

CRP 472

Implementation of the Local Planning Process, 3 cr. (3 and 0). Change in course description and title.

(B) Graduate Course Changes

CRP 621

Urban Social Structure, 1-3 cr. (1-3 and 0). Change in hours only.

CRP 672

Implementation of the Local Planning Process, 3 cr. (3 and 0). Change in course description and title.

III. COLLEGE OF EDUCATION

(A) Undergraduate Course Change

Ed 101

Reading Improvement, 1 cr. (0 and 3). Change in lab hours only.

(B) New Undergraduate Courses

C Ed 341

Coaching and Officiating Football and Basketball, 3 cr. (2 and 3)

C ED 342

Coaching and Officiating Baseball, Track, and Field, 3 cr. (2 and 3)

C Ed 442

Practicum in Coaching, 3 cr. (1 and 6)

(C) Agricultural Education Curriculum Changes

1. Change Approved Horticulture elective to - Approved Agriculture elective.

2. Change AgEc 302 to AgEc 302 or 305 or 402.

3. Drop AgEc 452 from Curriculum, add Elective - 3 cr.

IV. COLLEGE OF ENGINEERING

(A) New Undergraduate Courses

Engr 455

The Role of Engineering in Technology Assessment, 3 cr. (3 and 0)

ET 315

Digital Electronic Circuits, 3 cr. (2 and 2)

ET 322

Electronic Circuits, 4 cr. (3 and 2)

ET 325

Electronic Communications, 3 cr. (2 and 2)

ET 343

Applied Fluid Mechanics, 3 cr. (2 and 3)

ET 435

Electrical Power Systems, 3 cr. (2 and 2)

ET 465

Instrumentation for Process Measurement and Control, 3 cr. (2 and 3)

ET 492

Technical Design Project, 3 cr. (1 and 4)

(B) Undergraduate Course Changes

E&CE 421

Electrical Machinery, 3 cr. (2 and 2). Change in format, description, theory and lab hours. Delete E&CE 419.

E&CE 431

Digital Electronics, 3 cr. (2 and 2). Change in format, description, theory and lab hours. Delete E&CE 433.

ET 211

Electrical Circuits, I, 4 cr. (3 and 2). Change in hours, course number and prerequisite.

ET 212

Electrical Circuits II, 4 cr. (3 and 2). Change in hours & course number.

ET 241

Applied Mechanics, 3 cr. (3 and 0). Change in course number and prerequisite. Delete ET 301.

ET 242

Applied Strength of Materials, 3 cr. (2 and 2). Change in title, description, course number and hours. Delete ET 302.

ET 245

Kinematics of Machines, 3 cr. (2 and 3). Change course number from ET 241.

ET 295

Problems in Technology, 3 cr. (2 and 3). Change course number from ET 351, hours and prerequisite.

ET 321

Elements of Electronics, 4 cr. (3 and 2). Change course number from ET 412, and hours.

ET 331

Electrical Machinery, 4 cr. (3 and 2). Change course number from ET 411, and hours.

ET 351

Applied Thermodynamics I, 3 cr. (3 and 0). Change title and course number from ET 321.

ET 352

Applied Thermodynamics II, 4 cr. (3 and 3). Change title, course number from ET 322 and hours.

ET 431

Electrical Engineering Technology Laboratory, 1 cr. (0 and 3). Change title, description and prerequisite.

ET 451

Mechanical Engineering Technology Laboratory, 1 cr. (0 and 3). Change title, description, course number from ET 331 and prerequisite.

ET 455

Heating and Air Conditioning, 4 cr. (3 and 2). Change course number from ET 421 and hours.

ET 461

Machine and Component Design, 3 cr. (2 and 3). Change course number from ET 441.

(C) New Graduate Course

SE 895

Systems Engineering Seminar, 1 cr. (1 and 0).

(D) Graduate Course Changes

E&CE 621

Electrical Machinery, 3 cr. (2 and 2).
Change in format, description, theory
and lab hours.

E&CE 631

Digital Electronics, 3 cr. (2 and 2).
Change in format, description, theory
and lab hours. Delete E&CE 633.

SE 890

Special Topics in Systems Engineering,
1-6 cr. (1-6 and 0). Change of Credits.

(E) The Dean of the University recommend-
ed that the attached catalog description
for Engineering Technology be approved.

V. COLLEGE OF LIBERAL ARTS

(A) New Undergraduate Course for Honors
Credit

Psych H-201

General Psychology, 3 cr. (3 and 0).

VI. COLLEGE OF SCIENCES

(A) The Dean of the University recommend-
ed that the Baccalaureate, Master's and
Ph.D. degrees in Mathematics be changes
to a Baccalaureate, Master's and Ph.D.
degree in Mathematical Sciences, effective
with the December 1975 graduation.

(B) New Undergraduate Course

Bioch 408

Physiological Chemistry Laboratory,
1 cr. (0 and 3). (Laboratory section
separate from lecture section.)

(C) Undergraduate Course Changes

Bioch 406

Physiological Chemistry, 3 cr. (3 and
0). Change in hours.

Bot 451

Plant Anatomy, 4 cr. (3 and 3). Change
in credit hours, theory and lab hours.

Bot 455

Vascular Plant Morphology, 4 cr. (3
and 3). Change in credit hours and
theory hours.

(D) Bioch 608 Physiological Chemistry
Laboratory, 1 cr. (0 and 3). (Laboratory
section separate from lecture section.)

(E) Graduate Course Changes

Bioch 606

Physiological Chemistry, 3 cr. (3 and
0). Change in hours.

Bot 651

Plant Anatomy, 4 cr. (3 and 3). Change
in credit hours, theory and lab hours.

Bot 655

Vascular Plant Morphology, 4 cr. (3 and
3). Change in credit hours and theory
hours.

Math 701

Modern Mathematics for Elementary School
Teachers - Number Systems I, 3 cr. (3
and 0). Change in course title.

Math 703

Modern Mathematics for Elementary School
Teachers - Geometry, 3 cr. (3 and 0).
Change in course title and description.

Math 705

Modern Mathematics for Elementary School
Teachers - Algebra, Probability and
Statistics, 3 cr. (3 and 0). Change in
course title and description.

Math 732

Projective Geometry, 3 cr. (3 and 0).
Change in course description.

Math 771

Numerical Methods in Secondary Mathema-
tics I, 3 cr. (3 and 0). Change in
course title and description.

Math 781

History of Mathematics, 3 cr. (3 and 0).
Change in course description.

Math 783

Theory of Numbers, 3 cr. (3 and 0).
Change in course description.

Action: Approved.

E. N. Tyndall
Secretary

Minutes of The Undergraduate Council
Meeting, February 7, 1975

The Undergraduate Council met in the
Conference Room, E-103A Martin Hall. The
following were present: Dean Claud B.
Green (Chairman), Lamar H. Brown, Claire

O. Caskey, Bingham M. Cool, Ralph K. DeHaven, James C. Fanning, Ralph W. Gilchrist, Viktor Jonkoff (Student Representative), John H. Rogers, George C. Skelley, Gloria A. Tanner, Edward A. Vaughn, and Kenneth N. Vickery.

The minutes of the November 22, 1974, meeting were approved with one correction: E&CE 308, Electronics and Electromechanics, 3 cr. (2 and 3) should read 3 cr. (2 and 2).

College of Agricultural Sciences

The following new course was approved:

Agron 404
Soils and Land Use, 2 cr. (1 and 3).

College of Architecture

The following course changes were approved:

CRP 421
Urban Social Structure, 1-3 cr. (1-3 and 0).
CRP 472
Implementation of the Local Planning Process, 3 cr. (3 and 0).

College of Education

The following course change was approved:

Ed 101
Reading Improvement, 1 cr. (0 and 3).

The following new courses were approved:

C Ed 341
Coaching and Officiating Football and Basketball, 3 cr. (2 and 3).
C Ed 342
Coaching and Officiating Baseball, Track and Field, 3 cr. (2 and 3).
C Ed 442
Practicum in Coaching, 3 cr. (1 and 6).

The following changes in the Curriculum in Agricultural Education were approved:

1. Change Approved Horticulture elective to - Approved Agriculture elective.

2. Change Ag Ec 302 to Ag Ec 302 or 305 or 402.

3. Drop Ag Ec 452 from curriculum, add Elective - 3 cr.

College of Engineering

The following course changes were approved:

ET 211
Electrical Circuits I, 4 cr. (3 and 2).
ET 212
Electrical Circuits II, 4 cr. (3 and 2).
ET 241
Applied Mechanics, 3 cr. (3 and 0).
ET 242
Applied Strength of Materials, 3 cr. (2 and 2).
ET 245
Kinematics of Machines, 3 cr. (2 and 3).
ET 295
Problems in Technology, 3 cr. (2 and 3).
ET 321
Elements of Electronics, 4 cr. (3 and 2).
ET 331
Electrical Machinery, 4 cr. (3 and 2).
ET 351
Applied Thermodynamics I, 3 cr. (3 and 0).
ET 352
Applied Thermodynamics II, 4 cr. (3 and 3).
ET 431
Electrical Engineering Technology Laboratory, 1 cr. (0 and 3).
ET 451
Mechanical Engineering Technology Laboratory, 1 cr. (0 and 3).
ET 455
Heating and Air-Conditioning, 4 cr. (3 and 2).
ET 461
Machine and Component Design, 3 cr. (2 and 3).

The following new courses were approved:

ET 315
Digital Electronic Circuits, 3 cr. (2 and 2).
ET 322
Electronic Circuits, 4 cr. (3 and 2).
ET 325
Electronic Communications, 3 cr. (2 and 2).

ET 343

Applied Fluid Mechanics, 3 cr. (2 and 3).

ET 435

Electrical Power Systems, 3 cr. (2 and 2).

ET 465

Instrumentation for Process Measurement and Control, 3 cr. (2 and 3).

ET 492

Technical Design Project, 3 cr. (1 and 4).

Approval was given to the request to increase the credit requirements in the Engineering Technology Curriculum from 128 to 130. (A copy of the Catalog Description Change is attached to these minutes.)

Dean Green announced that Engr 310, the Environment and Modern Technology, was approved by mail ballot but was not submitted to the Educational Council because of the degree of duplication with an existing course in another department.

College of Forest and Recreation Resources

The following course was approved by mail ballot:

RPA 190

Modern Dance, 1 cr. (0 and 3).

College of Liberal Arts

The following course was approved for honors credit:

Psych H-201

General Psychology, 3 cr. (3 and 0).

College of Sciences

Approval was given to change the Baccalaureate degree designation for the major in mathematics from Mathematics to a Baccalaureate degree in Mathematical Sciences, effective with the December 1975 graduation.

The following course change was approved:

Bioch 406

Physiological Chemistry, 3 cr. (3 and 0).

The following new course was approved:

Bioch 408

Physiological Chemistry Laboratory, 1 cr. (0 and 3).

ET PROGRAM

CATALOG DESCRIPTION CHANGE

Engineering Technology Curriculum:*

This curriculum is a four-year, applications and job oriented plan of study which leads to a Bachelor of Science degree in Engineering Technology. It provides a broad base of fundamentals and their application in the areas of electrical, mechanical, and industrial engineering technology. In addition, electives amounting to approximately two semesters of work permit developing a program to match the student's aptitudes and interests as related to industrial and other employment opportunities. These opportunities are found in such areas as electrical and mechanical equipment development, production supervision and management, industrial planning, production methods, technical purchasing and sales, building construction, quality control, technical personnel management, supervision of plant environmental and energy systems, maintenance and technical writing and drawing.

The difference between the Bachelor of Science Degree in Engineering and the Bachelor of Science Degree in Engineering Technology hinges, in general, on the former being concerned with original system design and the latter with the construction, adaptation and operation of that design to meet the needs of mankind. The Engineering Technology curriculum is designed to meet a broad base of general practitioner-type needs in industry and other types of enterprise in contrast to those requiring an indepth, theoretical understanding.

The curriculum leads to the Bachelor of Science degree in Engineering Technology. Requirements for the degree are as follows:

	Hours Credit
Basic Science and Mathematics (including statistics, computer programming, and an elective) . .	25
Technical Core	33
Technical Specialty	27
Communications, Humanities and Social Sciences (including electives)	24
Approved Electives (including up to 10 hours of ROTC)	11
Electives	<u>10</u>
	130

The Engineering Technology Program is designed not only to educate regular four-year students but to facilitate the education of transfer students from community colleges and technical education centers.

* Additional information on both the Engineering Analysis and the Engineering Technology programs is available from the Office of the Dean of Engineering.

Items for inclusion in the Clemson University Calendar of Campus Events must be submitted to the Office of Public Relations by the 5th of the month for publication in the issue dated the 15th and by the 20th of the month for the issue dated the 1st. All items must be typewritten and double spaced and must follow the following format:

Date, type of event, title of event and brief description if necessary, sponsoring department, time, location, who may attend, admission charge.

For example:

- 5 Livestock Judging: "Future Farmers of America State Contest," 36 winning teams from the FFA Federation elimination contests will compete for the state championship. Co-sponsored by the Department of Agricultural Education and the Department of Animal Science. 11:45 a.m. - 3:30 p.m., brick barn across S. C. 76 from Tri-County TEC, open to the public, admission free.

Please include all items of information. Thank you for your help and cooperation.

Calendar of Campus Events

- 1 -- Intramural Sports: Tennis, men's and women's singles, entries close April 4. Horseshoes, entries close April 6. For further information contact the Intramural Sports Office. 656-2116.
- 1 -- History Club Film: The Best Years of Our Lives by William Wyler, discussion led by Dr. E. M. Lander, 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.

- 1 -- 1975 Continuing Education continues.
- 1-2 IM&TS Seminar: "The Art and Skill of Delegation," led by Mrs. Janet J. Glocker. Sponsored by the Office of Professional Development, registration 8:30 a.m., Sirrine Hall, fee charged.
- 3 -- Woman's Club: "Luncheon and Fashion Show," 12:30 p.m., Clemson House.
- 3 -- Environmental Systems Engineering Seminar: "Water Quality at Bad Creek," Wayne Iseman, ESE, 4:00 p.m., 302 Rhodes, open to interested persons.
- 4 -- Military Banquet and Ball, sponsored by the Scabbard and Blade Society for all Army and Air Force cadets. Banquet, 7:00 p.m., Harcombe Dining Hall; ball, 9:00 p.m., National Guard Armory, tickets may be purchased from Scabbard and Blade members.
- 5 -- Livestock Judging: "Future Farmers of American State Contest," 36 winning teams from the FFA Federation elimination contests will compete for the state championship. Co-sponsored by the Department of Agricultural Education and the Department of Animal Science. 11:45 a.m. - 3:30 p.m., brick barn across S. C. 76 from Tri-County TEC, open to the public, admission free.
- 5 -- Agricultural Mechanics Contest: "Future Farmers of America State Contest," eight winning teams from the FFA district elimination contests will compete for the state championship. Co-sponsored by the Department of Agricultural Education and the Department of Agricultural Engineering. 11:45 a.m. - 4:30 p.m., McAdams Hall, open to the public, admission free.
- 6 -- Architecture Exhibition: "Herb Jackson - Recent Paintings and Graphics," by Herb Jackson, Professor of Art at Davidson College. "Phil and Sharon Whitley - Sculpture," by two faculty members of the Greenville County Museum of Art School. Both exhibitions run through May 2. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 7 -- Intramural Sports: Track, entries close April 11.
- 7 -- Plant Pathology Seminar: "Agriculture in Vietnam," Mr. Ngo Huy Can, Clemson University, 12:20 p.m., 222 Long Hall, open to interested persons.
- 8 -- Clemson University Concert Band tour concert, 8:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 8 -- 1975 Continuing Education continues.
- 9 -- Military Honors and Awards, jointly sponsored by the Army and the Air Force, 4:00 p.m., Bowman Field.
- 9 -- Honors and Awards Day, classes suspended at 12:00 noon.
- 10 -- Environmental Systems Engineering Seminar: "Effect on Cell Residence Time on Effluent Quality in the Activated Sludge Process," Mike Saunders, Georgia Tech, 4:00 p.m., 302 Rhodes, open to all interested persons.
- 10 -- Fine Arts Lecutre: "The Role of Forestry in Conservation," Duncan Howlett, American Forestry Association's Citizen of the Year. 3:30 p.m., P & AS Auditorium, open to interested persons, admission free.

- 10-11 IM&TS Seminar: "Increasing Purchasing's Effectiveness," led by Mrs. Janet J. Glocker. Sponsored by the Office of Professional Development, registration 8:30 a.m., Sirrine Hall, fee charged.
- 11 -- Dionysia '75: A drama competition in French, German, Russian and Spanish by students from universities and high schools in the Southeastern states. Key-note address by Dr. Harold Clurman, 7:00 p.m., Daniel Hall Auditorium, open to the public, admission free. As part of Dionysia '75, the Clemson Players will present The Lesson and The Bald Soprano by Eugene Ionesco in English, 8:15 p.m., Daniel Hall Auditorium, open to the public, admission free.
- 12 -- Dionysia '75: Actual student competitions and awards and prizes ceremony. Begins at 9:00 a.m., French, Tillman Hall Auditorium; German, McAdams Auditorium; Russian, Hardin Auditorium; Spanish, Food Industries Auditorium.
- 12 -- Third Annual JROTC Invitational Rifle Match, sponsored by the Military Science Department. 8:30 a.m. - 4:00 p.m., Rifle range (basement of Wannamaker Hall), open to the public, admission free.
- 14 -- Spanish Film: Summerskin, sponsored by the Language Department, 7:30 p.m., 315 Daniel Hall, open to the public admission free.
- 14 -- Clemson University Chorus presents a spring concert, 8:00 p.m., Tillman Auditorium, open to the public, admission free.
- 14 -- Plant Pathology Seminar: "Tobacco Breeding Research at Coker's Pedigreed Seed Company," Dr. Carol R. Miller, 12:20 p.m., 222 Long Hall, open to interested persons.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 16

CLEMSON UNIVERSITY LIBRARY
ROUTE CAROLINA ROOM

APR 13 1975

April 15, 1975

TWELVE NAMED OUTSTANDING EDUCATORS

Twelve University faculty members have been selected as Outstanding Educators of America for 1975. Nominated earlier this year, they were selected on the basis of their civic and professional achievements by "Outstanding Educators of America." Clemson's outstanding educators are: Thomas George Turner Jr. (History and Visual Studies), Hong Shik Min (Zoology), Ruth Lanier Hays (Zoology), W. Owens Corder (Education), Stanley Michael Lukawecki (Mathematical Sciences), Lloyd Houston Blanton (Agricultural Education), Richard Edward Linhardt (Agricultural Education and Agricultural Engineering), John Alex Hash (Agricultural Education), Richard James Calhoun (English), David James Marx (Psychology), John W. Kenelly Jr. (Mathematical Sciences) and John Norman Gowdy (Electrical and Computer Engineering).



AFFIRMATIVE ACTION WORKSHOP -- The staff of the State Human Affairs Commission conducted a workshop recently for the Clemson University Affirmative Action

Unit Coordinators. It was the first to be conducted in the state for an institution of higher learning, and was similar to other workshops the Commission has held for various state agencies and local governments in an effort to assist in establishing programs to meet both federal and state requirements for affirmative action. With President Robert C. Edwards are James E. Clyburn (right), Commissioner of State Human Affairs, and E. N. Tyndall, University Affirmative Action Officer and Assistant to the President.

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

V. A. Boyd (Assoc Prof) and B. L. Dillman (Assoc Prof) attended a meeting of the Advisory Committee to the Southern Rural Development Center in Atlanta April 2-3.

James M. Stepp (Alumni Prof) presented the presidential address, "Regional Scientists and Regional Identity" at the annual meeting of the Southern Regional Science Association in Atlanta April 3-4. Also participating in the meeting was J. C. Hite (Assoc Prof), Sec.-Treas. of SRSA.

David Mulkey (Visit Instr) presented a paper, "Municipal Charges for Treating Domestic Sewage in South Carolina," for the economics section of the S. C. Academy of Science meeting in Charleston on March 29. The paper was co-authored by J. M. Stepp.

L. D. Malphrus (Assoc Prof) presented a paper, "Consumer Preferences for Pork Cuts with Varying Degrees of Marbling," for the economics section of the S. C. Academy of Science meeting. The meeting was held in Charleston on March 29.

CHEMISTRY

J. F. Geldard (Assoc Prof) presented a seminar, "Exciton Theory in Absolute Configuration," at the University of Georgia March 6.

O. J. Jacobus (Assoc Prof) presented the following seminars: Jan. 9, East Carolina University, "Symmetry in Chemistry;" Jan. 30, Emory University, and Feb. 18, University of Mississippi, "Stereochemistry at Trivalent Nitrogen;" Feb. 27, Maryville College, "Conformational Analysis Employing NMR;" and March 18, Arizona State University, "Stereochemistry Without Light."

Prof. Jacobus, W. Egan and S. Forsen (Univ of Lund, Sweden) published "The Solution Conformation of Nicotinamide Mononucleotide: A Quantitative Nuclear Overhauser Effect Study," in Biochemistry, 14, 735 (1975).

A. R. Pinder (Prof) presented a seminar, "The Chemistry of Perfumery," at Salem College/Academy on March 13.

CIVIL ENGINEERING

Parviz F. Rad (Asst Prof), Howard Sparrow and Gilbert Robinson (Prof and Hd, Ceramic Engr) were co-authors of a paper, "Inherent Mechanical Properties of Structural Brick," presented by Howard Sparrow at the 48th annual meeting of the South Carolina Academy of Science in Charleston on March 29.

Bernard E. Dunkle (Assoc Prof) participated in a workshop on "Media Applications in Industrial Training," in Greenville on March 5-6.

Donald B. Stafford (Assoc Prof) has been elected President of the Georgia-South Carolina Region Chapter of the American Society of Photogrammetry.

A project initiation grant for \$1,000 has been awarded by Student Competition on Relevant Engineering (SCORE) to the Clemson University Team for designs fabrication, and installation of an

innovative energy system in a residence. Numerous donations of parts, materials and services have been pledged by interested parties to the students working on this project that are in Civil Engineering, Mechanical Engineering and Electrical Engineering.

A canoe race was conducted on Lake Hartwell on March 30 between five teams of Civil Engineering students. The canoes were made by students of CE 320 from lightweight concrete reinforced with fine wire mesh. The best two boats were taken to N. C. State University in Raleigh on April 4 as Clemson University's entry in a regional concrete canoe race sponsored by the American Society of Civil Engineers, American Concrete Institutes and the American Society for Testing and Materials.

COLLEGE OF ENGINEERING

B. E. Gilliland (Asst to the Dean) chaired a session on Lasers and Optics at the Southeastcon 75 Conference held at Charlotte, N. C., April 7-9.

Prof. Gilliland co-authored a paper, "Minicomputers and Tensile Testing," with J. L. Dorrity (Dir of Technical Research, Greenwood Mills) which was presented at the Textile Quality Control Association Spring Meeting held in Charlotte, N. C., April 3-4.

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

March 7 was "J. P. Stevens Day" in the College of Industrial Management and Textile Science. Approximately 30 persons involved in production management for J. P. Stevens were guests of the College. Each department gave presentations as follows: Textiles - "Textile Research in the College of IM & TS," Professional Development - "Professional Development in the College of IM & TS," Accounting and Finance - "Accounting in the College of IM & TS," Industrial Management - "Evaluating Methods of Improving Productivity" and Economics - "Inflation, Recession and the Market." Dean Wallace D. Trevillian presided over the meeting.

COUNSELING CENTER

Fred Steele (Counseling Psychologist) and Jack Mulkeen (Dir, Student Counseling) attended the 50th Convention of the American College Personnel Association and participated in planning a conference for Southern Counseling Center Personnel.

William W. Pennscott (Prof, Elem and Sec Ed) and Dr. Mulkeen sponsored a workshop on Sex Equality in Guidance Opportunities for personnel from local school districts.

DAIRY SCIENCE

J. W. Kelly (Assoc Prof) and J. R. Holman (Assoc Prof) have written a symposium paper, "A Modified Herd Reproductive Status Program for South Carolina Dairy Herds," published in the February 1975 issue of The Journal of Dairy Science, Vol. 58, pp. 261-266.

ECONOMICS

Russell Shannon (Assoc Prof) addressed the members of the Phi Eta Sigma at their initiation banquet which was held at Coneross Fish Lodge March 5.

ENGLISH DEPARTMENT HEAD

Dr. Ronald Wesson Moran, Associate Professor of English and Assistant Dean of the College of Arts and Sciences at the University of North Carolina (Chapel Hill) will succeed Dr. M. A. Owings as Head of the Department of English on July 1, 1975. Dr. Owings will retire as Professor Emeritus of English and Head Emeritus of the Department of English on June 30.

Professor Moran, a native of Pennsylvania, was educated at Colby College (Maine) and at Louisiana State University, where he received the doctorate in 1966. He has been on the faculty of the University of North Carolina since 1966. In 1969-70 he was Fulbright Lecturer in American Literature at the University of Wurzburg in West Germany. He is the author of two books and a number of poems and scholarly

articles. Professor Moran, Mrs. Moran and their twin son and daughter will move to Clemson in July.

ENGLISH

Mark Steadman (Assoc Prof) had his novel, McAfee County, published in Germany under the title, Schwarze Chronik.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

J. D. Hair (Asst Prof), G. Hepp, L. Luckett, K. Reese (Grad Res Assts) attended and participated in the First International Waterfowl Symposium, St. Louis, Mo., Feb. 4-6.

ENVIRONMENTAL SYSTEMS ENGINEERING

Jim Chisman (Assoc Prof, ECE) and John H. Austin (Prof and Hd) met with EPA officials to discuss possible implementation of a four-year wastewater technology program at Clemson University on April 4.

Many books were donated to our department by Chalres W. Heckroth, editor of Water and Wastes Engineering.

Heinrich O. Buhr (Visit Assoc Prof) presented a seminar, "Control Strategies for the Activated Sludge Process," in Houston March 27 to practicing engineers, students and faculty of Rice University and the University of Houston.

GEOLOGY

R. D. Hatcher Jr. (Assoc Prof) was an invited participant at the conference on the "Geothermal Energy Potential in the Eastern United States," held March 10-11 at the National Academy of Sciences in Washington sponsored by the Energy Research and Development Administration, Los Alamos Scientific Laboratory and the U. S. Geological Survey.

V. S. Griffin Jr. (Assoc Prof) presented the monthly lecture before the Mineralogical Association of Stockholm March 12

in Stockholm, Sweden. Topic: "The Tectonic Evolution of the Southern Appalachian Piedmont."

Prof. Griffin also presented an invited lecture, "Migmatization, Structural Styles and Basement Relationships in the Southern Appalachian Piedmont," before the Spring 1975 meeting of Swedish basement tectonic groups from the Universities of Uppsala, Lund and Gothenburg, assembled by the Swedish Geological Survey, held March 13-14 in the Mineralogiska och Geologiska Institutionen at Uppsala, Sweden.

HISTORY

James E. Sargent (Asst Prof) has reviewed Bernard Asbell's The F. D. R. Memoirs (Doubleday & Co., 1973) for The History Teacher, VIII (Feb. 1975).

HORTICULTURE

J. R. Haun (Prof) has received a \$66,000 research contract from the National Aeronautics and Space Administration for further work on plant-environment relationships. This is part of a program for application of remotely sensed environmental data from satellites to crop status evaluation and yield predictions. This contract brings the total amount to date for research of this type to \$275,724.

LANGUAGES

D. Y. Brannock Jr. (Asst Prof) has received a National Endowment for the Humanities Fellowship to attend a seminar on the nineteenth century French novel for the summer at the University of Pittsburgh.

H. E. Stewart (Prof and Hd) chaired a section at the USC French Literature Conference March 28 in Columbia.

LIVESTOCK-POULTRY HEALTH DEPARTMENT

Thomas H. Eleazer (Vet II) presented a paper, "Game Bird Management for Disease Control," at the Florida Game Bird and

Preserve Conference held on campus at the University of Florida, Gainesville on March 29.

MATHEMATICAL SCIENCES

J. V. Brawley (Prof) delivered a colloquium address, "The Gambler's Ruin," on Feb. 11 at Western Carolina University.

Prof. Brawley has been elected 1975-76 Section Lecturer for the Southeastern Section of the Mathematical Association of America. The Section Lecturer by tradition delivers the first address at the Association's annual meeting.

MECHANICAL ENGINEERING

Nelson R. Bauld Jr. (Prof) presented a paper, "Effect of Internal Pressure on the Imperfection - Sensitivity of Stringer Reinforced Cylindrical Sandwich Panels," at the 14th Midwestern Mechanics Conference at Oklahoma University March 23-25.

MUSIC

Edith B. Card (Instr) presented a program entitled, "Traditional Music of the Southern Appalachians," on March 25 at the Southern Division convention of the Music Educators National Conference in New Orleans. This program was sponsored by the MENC Bicentennial Committee.

PHYSICS AND ASTRONOMY

J. A. Gilreath (Asst Prof) delivered an invited paper on "Optical Principles of Electron Microscopes" at the annual meeting of the South Carolina Academy of Science in Charleston on March 28.

Beverly B. Bookmyer (Assoc Prof) took part in a series of binary-star discussions at Goddard Space Flight Center, Greenbelt, Md., March 17-20.

Prof. Bookmyer, J. R. Ray (Assoc Prof), and C. R. Sturch (Visit Asst Prof) attended a symposium and the dedication of the

Moorehead Observatory at the University of North Carolina March 21-22.

Prof. Bookmyer and Prof. Sturch also participated in the Charleston meeting of the South Carolina Academy of Sciences March 27-29. Prof. Sturch presented a paper, "How Elements are Made," and he and Prof. Bookmyer took part in a panel discussion, "Careers in Astronomy."

POLITICAL SCIENCE

Charles W. Dunn (Assoc Prof and Hd) and Jack E. Tuttle (Assoc Prof) have been awarded a \$10,000 plus grant from the Robert A. Taft Institute to conduct the third annual Taft Seminar in "Government and Politics" for secondary school teachers in South Carolina between June 9-21.

Prof. Dunn has been appointed to the South Carolina Governmental Reorganization Commission by Governor James B. Edwards.

Mary Jeanne Reid Martz (Asst Prof) participated in the U. S. Department of State's "Scholar-Diplomat Seminar" on Latin America March 10-14 in Washington, D. C. She was one of thirteen participants selected from across the United States.

Marvin R. Pilo (Instr) served on the faculty of a Short Course on "Political Socialization," sponsored jointly by the National Science Foundation and the American Association for the Advancement of Science and held at Clark College in Atlanta, Ga., March 20-21.

Harold E. Albert (Assoc Prof) organized and chaired a panel on "Energy versus Environment" at the 1975 National Conference of the American Society for Public Administration in Chicago on April 2.

Prof. Albert and Prof. Pilo presented a paper, "A Computer Modeling Technique for Analyzing the Socio-Political Inputs for Land-Use Planning in a Coastal Zone," at the 1975 national conference of the American Society for Public Administration held in Chicago April 1-4.

PSYCHOLOGY

Jerry D. Frey (Visit Asst Prof) presented a paper, "Attentional Bias in the Perception of Ongoing Behavior," at the Eastern Psychological Association Convention April 3-5 in New York City.

RECREATION AND PARK ADMINISTRATION

Jack Stevenson (Prof) gave the keynote address, "Communication, Education, Motivation: Keystone Characteristics of Staff Development," for a mini-conference division of the National Recreation and Park Association Southern District meeting in Roanoke, Va., March 23-25.

SOCIOLOGY

William C. Capel (Assoc Prof) has presented (with George Rent, UNCC and Clyda Rent, Queens) a paper, "Sex Preferences in Fertility Aspirations of College Women Attending Woman's Institutions," at the Southwestern Social Science Association Meetings in San Antonio, Texas, March 26-29. The paper appears in Sociological Abstracts, Vol. XXLII, Supplement 49, page 25 (Feb. 1975).

TEXTILE DEPARTMENT

J. J. Porter (Assoc Prof) and C. A. Brandon (Assoc Prof, ME) presented a paper, "Hyperfiltration of Textile Waste for Chemical and Water Recovery," at the ACS Meeting which was held in Philadelphia April 8.

E. I. Stearns (Prof and Hd) gave a talk, "Textile Dyeing and Finishing," to the South Carolina Association of Launderers and Dry Cleaners. The presentation told how the latest trends in the textile industry will affect the launderers and dry cleaners.

ZOOLOGY

Edward B. Pivorun (Asst Prof) has received a grant-in-aid of \$900 from the Highlands Biological Station, Highlands, N. C., for

a radiotelemetry study of body temperature and ECG patterns in free-ranging muskrats.

Minutes of The Faculty Senate Meeting, February 18, 1975

I. Call to order and approval of the minutes

President Dillon called the meeting to order when a quorum was established at 4:30 p.m. The minutes of the January 14 meeting were approved as circulated.

II. Committee Reports

A. Admissions and Scholarship - no report

B. Policy

Chairman Roberts presented Professor Spurgeon Cole's rewrite of a new plan for the computerization and use of the results from "Faculty Evaluation by Students." The Policy Committee supported the presentation of this item to the Faculty Senate for its consideration. Chairman Roberts distributed copies of the plan and requested that each Senator obtain his or her Dean's permission to duplicate and distribute the plan to members of the faculty. Copies are available from Professor Cole's office. During the ensuing discussion the following points were raised: Whether the plan will be voluntary or mandatory; The validity of some of the questions was questioned, i.e., no. 7., an outline may not be necessary; The Senate has gone on record opposing a similar plan; The students apparently plan to conduct their own evaluation. The suggestion was made that Professor Cole be invited to address the Senate.

Chairman Roberts reported that the Policy Committee held preliminary discussions on the feasibility of recommending favorable consideration for the concept of "rotation of Department Heads and/or Chairmen." He suggested that further, in depth, studies by other committees of the Senate and the Policy Committee be conducted.

C. Welfare

Chairman Baron advised the faculty senate that vesting in the South Carolina system does not mean the same as it does under Federal law or at other institutions. A person who is vested in a retirement system can normally expect that if he dies before retirement age, his estate will receive the employer's contribution as well as his own contribution at some reasonable interest rate. Under the South Carolina system a person who is vested and dies before retirement, even if eligible for retirement, receives only his contribution to the system, with 4% interest. Chairman Baron stated that the State Employees Association was lobbying for a reduction in the vesting time from 15 to 10 years. He expressed concern over the fact that we were likely to win a change in the vesting period, which would be of little or no benefit to state employees, at the expense of other changes such as a change in the value of the retirement benefits. Chairman Baron indicated that more than one study had shown that the cash benefits received from the S. C. Retirement system were quite poor compared to other retirement systems.

D. Research - no report

E. University Standing Committees

Senator Grove, Senate representative on the Landscape and Site Development Committee, listed the various buildings which are under construction on the campus. He reported that pigeons on buildings were exterminated by shotguns over the Christmas holidays and expressed concern over the safety aspects of such a practice. A motion was made, seconded and passed to refer this matter to the Safety Committee. It was brought out that no budgeting for grounds is allowed for when funds for the construction of a building is budgeted. A Senator raised the question as to how much planning was involved in the building of the fence around the greenhouses which shaded them and rendered them virtually useless.

III. President's Report

1. It has been requested that Senate formation of committees and new appointment

to University Standing Committees and Councils be made by April 15 in order to conform with other appointment deadlines. This action will insure listing of current membership in new academic year publications.

2. Dean Vickery has supplied the Senate with the Cooperative Institutional Research Program Summary of Data on Entering Freshmen for Fall 1974. He will make comparative observations available to Senators who feel the data may be valuable.

3. Vice President Carpenter attended the Clemson Board of Trustees' meeting January 21 and reported that the main item of business involved the transfer of three parcels of land. Vice President Melford A. Wilson made a report on funding with an observation that cost of utilities is causing some problems. Dean Walter Cox reported on the profile of incoming students and that their decision to choose Clemson University was based primarily on good academics.

4. The following title changes in the College of Agricultural Sciences were announced:

Director of Experiment Station to Associate Dean and Director...

Director of Cooperative Extension Service to Associate Dean and Director...

Director of Resident Instruction to Associate Dean and Director...

5. The Advisory Committee to the Bookstore consists of the following individuals: Dr. R. K. DeHaven, Ag. Ec.; Dr. J. L. Allen, Chem. & Geol.; Dr. J. A. Chisman, Faculty Senate; Prof. J. W. Barnhill, History; Mr. John Zimmerman, Graduate Student; Mr. Jack McKenzie, Undergraduate Student and Mr. Sam Burn, Undergraduate Student.

6. Professor Bill West, Chairperson of ad hoc Committee on Faculty Evaluation of Administrators has advised the President of the Senate that an evaluation form has been developed. He has been asked to present this to the Senate during the March meeting.

7. Vice President S. G. Nicholas' letter concerning the new Clemson University logo was read.

8. On January 23 the President of the Senate met with the Vice Presidents of Student Affairs, Academic Affairs and Business and Finance to discuss the University Motor Pool. Items covered were insurance coverage and the 1974 Faculty Senate recommendations concerning the motor pool. Shortage of vehicles in the motor pool have been caused by an increase in requests and the failure of personnel to return vehicles on time.

9. The Senate was asked to approve the suggested statement on "Compensation for the Summer Period for Academic Year Personnel." (See Attachment A). During the ensuing discussion it was brought out that faculty can earn up to one-third of their salary during the summer. This is calculated by taking one-third of the amount received for working between May 17 and August 14, minus legal holidays, and converting to a daily rate.

One Senator objected to the statement on the basis that it could result in "clock punching." A motion was made and seconded to accept the statement. A motion to strike the last sentence of the statement was made and seconded and approved. The motion to accept the amended version of the statement passed (three negative votes were cast).

10. On February 21 the President of the Faculty Senate, accompanied by former President Ernest Rogers, will meet with a faculty, student, administrative group headed by Dean Cox to discuss "Use of Fike Recreation Center." Of particular concern is the matter of charges for other than fee paying students, and whether faculty families be allowed to use the facilities.

11. The following were considered at the February 3 meeting of the Educational Council meeting:

a. July 4 or some equivalent day will be observed during the summer session. The day will be made up on the following Saturday.

b. Letterheads with new logo were adopted.

c. The announcement was made that the Budget and Control Board passed a resolution freezing positions.

12. The announcement was made that the current mean GPR for Poole Scholars is $3.81 \pm .25$.

13. At the February 15 meeting of the Athletic Council the following standardized colors were suggested: Burnt Orange and Northwestern Purple.

14. The Senate was asked to consider changing the meeting time from 4:15 p.m. to 3:30 p.m.

IV. Old Business

There was none.

V. New Business

There was none.

VI. Adjourn

The quorum was lost and the Senate adjourned at 6:00 p.m.

Respectfully submitted,

T. R. Adkins Jr.
Secretary

Senators absent: Ezell, Hedden, Benson, Powers, Douglass, Tombes, Jacobus and Bookmyer.

ATTACHMENT A
(Amended version)
January 20, 1975

COMPENSATION FOR THE SUMMER PERIOD FOR ACADEMIC YEAR PERSONNEL (SUMMER PAY)

The Budget and Control Board directive relating to summer pay dated February 17, 1966, states:

"Compensation for teaching and/or sponsored research performed during summer months (between academic years), and not related to a regular six-weeks summer session,

shall be as follows: (1) for an employee whose base period is a semester or academic year, compensation shall be at the same rate as for the base period."

In order to have this policy uniformly implemented, the following procedure should be used.

(1) Calculate a daily compensation rate for the faculty member by dividing the number of working days during the summer period (May 17 through August 14, inclusive) into one-third of the faculty member's base pay for the immediately preceding academic year. The faculty member is then paid at this rate for each working day that he is employed by the University during the summer period. If he is employed for each working day during the entire summer period, he would earn a full one-third of his preceding academic year's salary. If he is employed for less than full-time or for only a part of the summer period, his compensation would be proportionately less.

The working days between May 17 and August 14, inclusive, for the years 1975 through 1980 are as follows: 1975 - 64; 1976 - 65; 1977 - 64; 1978 - 64; 1979 - 64 and 1980 - 64.

(2) Where a legal or declared holiday happens to fall on a work day during the summer period, it should be considered as a paid holiday if the individual concerned has been or is to be employed for a minimum of thirty continuous working days which includes the holiday(s) in the summer period.

If the period of employment is less than thirty continuous working days, the holiday shall not be considered as a paid holiday.

(3) Summer compensation at the daily rate as calculated above is to be paid to each academic year faculty member for the actual days employed.

April 15, 1975

9

Minutes of The Undergraduate Council Meeting, March 7, 1975

The Undergraduate Council met in the Conference Room, E-103A Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar H. Brown, Richard J. Calhoun, Bingham M. Cool, James C. Fanning, Ralph W. Gilchrist, Viktor Jonkoff (Student Representative), Mary Ann Kelly, George C. Skelley, Jerry Stonemetz (Student Representative), Edward A. Vaughn, Jessup M. Shively (Visitor) and James K. Zimmerman (Visitor).

The minutes of the February 7, 1975, meeting were approved as distributed.

College of Liberal Arts

The following change in the Political Science Major Concentration was approved:

Delete Ex St 301 Introductory Statistics from the curriculum. This increases the number of elective credits in the program from 24 to 27.

College of Sciences

The following new program was approved:

Bachelor of Science Degree in Biochemistry.

The deletion of the following courses was approved:

Cp Sc 210

Digital Computation and Numerical Methods for Engineers, 3 cr. (3 and 0).

Math 422

Mathematical Logic, 3 cr. (3 and 0).

Math 424

Foundations of Mathematics, 3 cr. (3 and 0).

Math 425

Intermediate Differential Equations, 3 cr. (3 and 0).

Math H482

Honors Seminars in Mathematics, 3 cr. (3 and 0).

Dean Green explained to the Council the changes in the Course Request Approval Form.

Professor Brown, Chairman of the Ad Hoc Committee to Study Duplication of Undergraduate Academic Programs, presented a preliminary report describing the plan of action outlined by the committee and reviewing some of the data currently available. The written report of the committee is to be presented at the April meeting.

Dean Green announced that the approved University Faculty Evaluation by students will be during the week of April 14-18. Forms will be distributed to individual faculty members prior to April 14.

Mr. Jonkoff and Mr. Stonemetz discussed the student sponsored evaluation of faculty which will be March 10-13.

Minutes of The University Audio-Visual Committee Meeting, February 4, 1975

Present: R. P. Ashworth, J. C. Hubbard Jr., M. W. Jutras, D. D. Moyle, P. K. Owens Jr., R. D. Riley, E. L. Wall, Samuel Wang, Ron Mattox (for Betty Watkins)

Dr. Jutras opened the meeting and the minutes of the January 5, 1975, meeting were corrected and approved.

Old Business:

Prof. Wang requested a statement regarding the A-V Show February 25-26, 1975, as to who should be invited. It was the consensus of opinion that area high schools and Tri-County Tech should be included.

Mr. Riley reported that the A-V Repair Service was in operation and records are being kept. At the end of the trial period, recommendations will be made from the sub-committee.

Mr. Durham's report on grant request to equip the loan center was presented by Dr. Jutras. Mr. Durham said that he had talked with Mr. Stan Nicholas, Vice President for Development, regarding Appalachian Grants. The impression given Mr. Durham was that there is a good chance of getting these, however, it would be necessary to talk to persons on the

Appalachian Regional Commission to determine their response. Dr. Jutras suggested Dr. Ashworth get in touch with Mr. Nicholas to determine who on the Commission should be contacted.

The report of the sub-committee to review the services of the Communications Center will be held over until the A-V Committee meeting in March.

New Business:

Dr. Moyle moved that the Committee contact Mr. Nicholas in an effort to expedite the publication of the pamphlet on "Communication Center Services." Seconded to Prof. Wang and carried. E. L. Wall would contact Hugh Adams of the Library Committee relative to soft ware master file of Campus software.

Dr. Jutras, at the beginning of the meeting, quoted media expert, Jack Tanzman, "Having instructional materials does not

mean we have a program." Reference to this quote, at the close of the meeting, stimulated the following comment: Dr. Jutras stated, "One thing that we do not have on this campus, as yet, and that we absolutely need, I believe, is instruction of professors, graduate teaching assistants and persons of this nature, in the proper and most effective use of instructional media. I have examples, every day, of misuse of instructional media by professors because they are doing things that they should not be doing. I am afraid we all do the same thing simply because we have not had the proper training. We learn by the hit and miss technique. Would you please be thinking, between now and the next meeting as to how this can best be corrected."

Approved March 4, 1975

J. C. Hubbard Jr.
Secretary

Calendar of Campus Events

- 15 -- History Club Flim: Elia Kazan's On The Waterfront, sponsored by the History Club, discussion led by Dr. J. E. Sargent. 2:30 and 7:30 p.m., 200 Hardin Hall, open to the public, admission free.
- 15 -- 1975 Continuing Education continues.
- 15-16 IM&TS Seminar: "Practical Skills in Managing People," led by Dr. Robert L. Brown. Sponsored by the Office of Professional Development, Sirrine Hall, fee charged.
- 15-20 Clemson Players Present: The Lesson and The Bald Soprano by Eugene Ionesco in English. 8:00 p.m., Daniel Hall Auditorium, open to the public, admission free.
- 17 -- Coffee House Circuit Act: "Michael Lewis," sponsored by the University Union. 9:00 p.m. - 12:30 a.m., The Gutter Coffee House, open to the public, suggested donation 50¢.
- 17 -- Environmental Systems Engineering Seminar: "An Investigation of Heavy Metal Contamination of Surface Waters," Joe Carpenter, ESE, 4:00 p.m., 302 Rhodes, open to interested persons.
- 17 -- Environmental Systems Engineering Seminar: "Mercury Contamination of Lake Jocassee and its Implications," Doye Cox, ESE, 4:00 p.m., 302 Rhodes, open to interested persons.

- 17-19 Movie: Sounder, sponsored by the University Union. 7:00 and 9:00 p.m., YMCA Theater, I. D. required.
- 18 -- Bengal Ball Weekend: Kite-flying and other contests, 4:00 - 6:00 p.m., Bowman Field. Jerry Rockwood as Edgar Allan Poe (one-man theater), 8:00 p.m., Tillman Auditorium, admission with I. D., \$1.
- 19 -- Bengal Ball Weekend: Beer and hot dogs, Mission Mountain Wood Band, 1:00 - 6:00 p.m., Y-Beach, admission with I. D., \$2.99. Paul Winter Consort, 9:00 p.m., Tillman Auditorium, admission with I. D., \$2.
- 20 -- Bengal Ball Weekend: Workshop by Paul Winter Consort, 1:00 p.m., Tillman Auditorium, admission with I. D., free. Outdoor concert and sale of student crafts, Cokes and ice cream, 2:00 - 7:00 p.m., Bowman Field. Concert is free. All Bengal Ball Weekend activities are sponsored by the University Union.
- 20 -- University Union Sunday Free Flick: Marx Brothers At The Circus and Davy Crockett, King of the Wild Frontier. 9:00 p.m., Outdoor Theater (if rain, YMCA Theater), I. D. required.
- 21 -- Plant Pathology Seminar: "Somatic Hybridization Research; and Cinemaphotography of Egg Laying and Feeding of Hoplolaimus columbus," with Dr. George Fassuliotis. 12:20 p.m., 222 Long Hall, open to interested persons.
- 21 -- Faculty Recital: William Campbell, tenor and Wanda Campbell, mezzo-soprano, sponsored by the Department of Music. 8:00 p.m., Daniel Auditorium, open to the public, admission free.
- 21-23 Movie: The Parallex View, sponsored by the University Union. 7:00 and 9:00 p.m., YMCA Theater, I. D. required.
- 22 -- 1975 Continuing Education continues.
- 22-25 Extension Forestry Unit Short Course: "Hardwood Log and Lumber Grading," led by Dr. Peter Labosky, sponsored by the Clemson University Cooperative Extension Service. Holiday Inn of Clemson, fee charged.
- 23 -- Short Course: "Personal Finance," sponsored by the University Union. 3:00 - 4:00 p.m., Room 2, YMCA, admission free.
- 24 -- University Concert Band "Pops" Concert, 8:00 p.m., Tillman Hall Auditorium, open to the public, admission free.
- 24 -- Environmental Systems Engineering Seminar: "Dynamic Modeling of the Secondary Clarifier in Wastewater Treatment," Dennis George, ESE, 4:00 p.m., 302 Rhodes, open to interested persons.
- 24-26 Movie: The Gambler, sponsored by the University Union. 6:55 and 9:00 p.m., YMCA Theater, I. D. required.
- 26-30 Seventh International Biomaterials Symposium sponsored by the Bioengineering Program and the Office of Continuing Engineering Education. Expected attendance 400 plus.
- 27 -- University Union Sunday Free Flick: Cat On A Hot Tin Roof, 8:00 p.m., YMCA Theater, I. D. required.

28 -- Examinations Begin.

28-30 Movie: Save The Tiger, sponsored by the University Union. 7:00 and 9:00 p.m., YMCA Theater, I. D. required.

29 -- 1975 Continuing Education continues.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

APR 29 1975

Vol. 14 No. 17

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

May 1, 1975

BIOCHEMISTRY

Gary L. Powell (Assoc Prof) gave a series of ten lectures (a minicourse), "Lipids in Membranes," at the Department of Biochemistry at the Medical University of South Carolina March 24-28.

Prof. Powell also gave a lecture, "Oleoyl-CoA Binding to Citrate Synthase, a Physiologically Significant Control Mechanism," to the Department of Biology at the University of South Carolina March 31.

CHEMICAL ENGINEERING

Three faculty members, S. S. Melsheimer (Assoc Prof), J. C. Mullins (Assoc Prof) and D. D. Edie (Asst Prof) and eighteen students attended the Southern Regional Conference of A.I.Ch.E. Student Chapters in Atlanta April 10-12. Gary S. Ragan (Senior) presented a paper entitled, "The Use of the Analog Computer as a Wave Generator for a Music Synthesizer," and Ricky Wolfe (Junior) incoming Student Chapter President, was elected Vice-Chairman of the Southern Regional Conference for 1975-76.

CHEMISTRY

G. B. Park (Asst Prof) presented seminars at Mississippi State University Feb. 12 and at the University of Alabama Feb. 13, "Applications of Electroanalytical Techniques to Neurochemical Problems."

L. C. Keifer (Grad Stu) and O. J. Jacobus (Assoc Prof) presented a paper, "Chirality at Trivalent Nitrogen," at the S. C. Academy of Science Meeting in Charleston March 29.

A. R. Pinder (Prof) presented seminars, "Biosynthesis," at the University of

South Carolina, Sumter and "Introduction to Organic Chemistry," at Hillcrest Senior High School, Dalzell on April 2.

CIVIL ENGINEERING

Two boats were taken up to North Carolina State University in Raleigh on April 4 as Clemson's entry in the regional concrete canoe race sponsored by The American Society of Civil Engineers, The American Concrete Institute, and the American Society for Testing and Materials. The races were held on April 5 at McGregor Downs Country Club between VMI, VPI, N. C. State, UNC at Charlotte, Clemson, Georgia Tech and Old Dominion. Donald B. Stafford (Assoc Prof) and James E. Clark (Assoc Prof) placed fourth in the Molly Dee during the faculty race.

CONTINUING ENGINEERING EDUCATION

Review Courses for Engineers, Engineering Technologists and Technicians and Engineering Management will be held May 12 - August 15 in seven locations throughout South Carolina and one location in North Carolina. Registration may be for any number of courses (28 subjects will be offered). The schedule is designed to permit a selection of subjects up to 10. Each course consists of five hours of class meetings for lecture and discussion, supplemented by a set of home study notes. Each meeting will consist of a late afternoon session - a break for dinner - and concluding with an evening session. These courses are administered and sponsored by Continuing Engineering Education and co-sponsored by various chapters of the S.C. Society of Professional Engineers.

The Water and Wastewater Treatment Plant Operator's School will be held May 12-16 at Clemson. The School will offer for

the operator preparing to stand the certification examination separate concentrated reviews at each operator level and for both water and wastewater plants. The School chairman is Fred L. Delvecchio (Proj Admstr ESE). Presented by Continuing Engineering Education and sponsored by Environmental Systems Engineering, Clemson University and Water Pollution Control Association of South Carolina.

A seminar on Industrial and Municipal Wastewater Treatment: Process Design and Operation will be held May 19-23 in 302 Rhodes Research Center, Clemson University. This course has been designed for consulting engineers, industrial environmental engineers, plant engineers, municipal engineers and engineers with federal and state agencies who are responsible either for producing or reviewing designs or for specifying operational criteria for wastewater treatment facilities. Its objective is to provide those in attendance with the most modern and up-to-date procedures for use in the design of both biological and physio-cochemical unit operations and processes that are in current use in wastewater treatment systems. Seminar chairman is Thomas M. Keinath (Assoc Prof, ESE). This seminar is presented by Continuing Engineering Education and sponsored by the Department of Environmental Systems Engineering in cooperation with the Department of Chemical Engineering.

ELECTRICAL AND COMPUTER ENGINEERING

J. W. Lathrop (Prof) and J. M. Murray (Asst Prof, Texas A&M and former Grad Stu) presented a paper, "Heart Rate Monitoring Utilizing Advanced Microelectronic Concepts," at the IEEE Southeastcon 75 in Charlotte, N. C., April 6-9. Prof. Lathrop also served as Chairman of the Thin Film Technology Session at the conference.

ELEMENTARY AND SECONDARY EDUCATION

William O. Corder (Assoc Prof) was a presenter at the South Carolina Guidance Association meeting in Columbia April 11-12.

ENGLISH

Charles DeLancey (Instr) gave the report of the S. C. Speech Association at the Southern Speech Communication Association Convention, April 2-5 in Tallahassee, Fla.

Robert W. Hill (Asst Prof) has published a poem, "Billy Goat," in the Spring 1975 issue of Southern Poetry Review.

J. H. Mandel (Assoc Prof) delivered a public lecture, "Chaucer's Physician's Tale," at West Virginia University March 24.

Prof. Mandel also read a paper, "Art in the Opening of Deor," at the Northeast Modern Language Association April 4 in Montreal. He was also elected an officer of the Old and Middle English section.

Richard J. Calhoun (Alumni Prof) has received a Fulbright-Hays Senior Lectureship to lecture on American literature and American studies in Denmark during 1975-76. He will be the only lecturer in American literature in Denmark for that year, and his primary responsibilities will be at Aarhus University and Odense University. Dr. Calhoun represented Clemson at the Fulbright-Hays Advisers/Alumni Workshop at Chapel Hill, North Carolina on April 4.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Gary G. Newman (Grad Res Asst) and G. R. Carner (Asst Prof) presented a paper, "The Effect of Selected Soybean Pesticides on Germination of Entomophthora gammae Conidia," at the annual meeting of the South Carolina Entomological Society March 4-5 at Clemson.

The following papers were presented at the annual meeting of the Georgia Entomological Society, St. Simons Island, Ga., March 19-21:

"An Entomophthora infection of the adult cluster fly, Pollenia rudis," by Gary G. Newman and G. R. Carner.

"A scanning electron microscope study of sporulation by Entomophthora sp. on the two-spotted spider mite," by G. R. Carner.

Prof. Carner also presented a seminar, "Entomophthora spp., Fungal Pathogens of Insects," on March 10 to the Department of Plant Pathology and Physiology.

L. G. Henry (former Grad Stu) and T. R. Adkins Jr. (Prof) published a paper, "Vertical Distribution of Biting Midges in Coastal South Carolina," in the Annals of the Entomological Society of America, Volume 68, No. 2, March 1975.

R. C. Fox (Prof) has prepared a 20-minute slide-tape program, "Our War with the Insects," for high school use.

Papers presented at the annual meeting of the S. C. Academy of Sciences included:

"Occurrence of Bluefin Killifish in South Carolina," by H. A. Loyacano (Asst Prof).

"Quinaldine Sulfate as an Anesthetic for Some Piedmont Fishes," by R. Familia (Grad Stu. Bioengr) and Prof. Loyacano.

Merle Shepard (Asst Prof) and Rodney Holloway (Asst Prof) attended and presented papers to the Southeastern Pecan Growers Association, annual meeting at Fort Walton Beach, Fla., March 9-11. Prof. Shepard presented results of research on sampling adult pecan weevils and Prof. Holloway presented a paper on ecology and control of pecan aphids.

The following paper was presented at the S. C. Entomological Society, March 4-5, "A Comparative Study of Triglycerides in Mosquitoes Susceptible and Resistant to Avian Malaria," by Geraldine Wicker (former Grad Stu), Raymond Noblet (Asst Prof) and A. B. Weathersby (Univ of Ga).

ENVIRONMENTAL SYSTEMS ENGINEERING

A. R. Abernathy (Prof) took part in the meeting of the Water Pollution Control Federation Nominating Committee in Washington, D. C. on April 16. He also chaired a session of the Regional Meeting of the Water Pollution Control Federation held in Atlanta on April 17-18.

Firdy Zawide, Sanitary Engineer with the Awash Valley Authority in Ethiopia visited the ESE department to discuss textile waste treatment, training of water and wastewater treatment plant operators, agricultural wastes and housing with members of the faculty of ESE and other departments on campus.

GEOLOGY

R. D. Hatcher Jr. (Assoc Prof) published the paper, "Second Penrose Field Conference: The Brevard Zone," in the March 1975 issue of Geology. This article is a summary of the results of the Penrose Conference convened by Prof. Hatcher this summer.

HISTORY

John LeBourgeois (Asst Prof) has published, "Morris, Rossetti and Warrington Taylor," in Notes and Queries, March 1975.

Richard M. Golden (Instr) presented a paper, "The Mentality of Opposition: The Jansenism of the Parisian Cures," in Boston April 5 at the spring meeting of the American Catholic Historical Association.

MATHEMATICAL SCIENCES

John Kenelly (Prof & Hd) has been invited to serve an additional term as Visiting Lecturer for the Mathematical Association of America during the academic year 1975-76. The Visiting Lecturer Program is sponsored by the Mathematical Association of America.

Prof. Kenelly attended a meeting of the College Entrance Board's Examination Committee on Advanced Placement as the Chief Reader Designee for the Educational Testing Service. The Committee meeting was held April 4-6 at Princeton, New Jersey. Prof. Kenelly also presented a colloquium lecture, "The Case of the Mathematical Scientist," to the faculty and students of East Tennessee State University, Johnson City, Tennessee on April 10.

J. V. Brawley (Prof) spoke on "Cryptography," to faculty and students at Augusta College on April 2. His visit was sponsored by the Math. Assoc. of America and was a part of the Cullum Visiting Scholar Lecturer series at Augusta College.

Prof. Brawley has been appointed to serve another term as a Visiting Lecturer on the Math. Assoc. of America Panel of Visiting Lecturers.

Morris Walton Powers (Lect) with W. Robert Boland (Assoc Prof) presented a paper, "A Numerical Technique for Obtaining Approximations to the solution of Certain Functional Equations Arising in the Theory of Epidemics," at the Seven Hundred Twenty-First meeting of the American Mathematical Society which was held March 20-21 at Mobile, Alabama.

The following faculty members presented papers at the Southeastern Section of the Mathematical Association of America meeting which followed the American Mathematical Society meeting in Mobile:

Andrew F. Sobczyk (Samuel Maner Martin Prof), "Algebras in the Theory of Elementary Particles."

W. Robert Boland, "Computer Assistance in Elementary Differential Equations," jointly with T. G. Proctor (Prof) and H. H. Suber (Visiting Asst Prof).

MICROBIOLOGY

Malcolm J. B. Paynter (Prof and Hd) was a featured speaker at a symposium on anaerobic microbiology sponsored by the South Carolina Branch of the American Society for Microbiology, and by the South Carolina Society for Medical Technology, held April 3 at Greenville. Dr. Paynter's presentation was entitled "Basic Biology of the Anaerobes."

The following papers were presented by members of the Department of Microbiology at the spring meeting of the S. C. Branch of the American Society for Microbiology held April 4 in Greenville:

"Multiple Antibiotic Resistance and Genetic Studies of Natural Isolates of Neisseria gonorrhoeae," by J. T. Powell (Grad Stu) and J. H. Bond (Assoc Prof).

"Studies of Multiple Antibiotic Resistant Strains of Neisseria Gonorrhoeae from the upper Piedmont Region of South Carolina," by R. K. Shockley (Grad Stu) and Prof. Bond.

"Influence of Stress in Liquid vs. Solid Media on Recovery of Vibrio parahemolyticus from Temperature Shock," by Christina Jost (Grad Stu) and M. G. Johnson (Asst Prof, Food Sci and Micro).

"Ecology of Methanogenesis in Salt Marsh and Estuarine Sediments," by W. J. Jones (Grad Stu) and Prof. Paynter.

"The Effects of Specific Heavy Metal Cations on Indicator Organisms and Two Pathogens in Fresh Water," by S. I. Coleman (Grad Stu) and Ann W. Baxter (Assoc Prof).

"UV-Interaction of Phage ϕ and its DNA," by Sarah E. Fries (Grad Stu) and L. L. Larcom (Asst Prof, Micro and Physics).

"Effect of Supplements on Lactic Fermentation of Peanut Emulsion," by E. R. Bucker (Grad Stu) and Prof. Johnson.

PHYSICS AND ASTRONOMY

A. L. Laskar (Assoc Prof) presented a paper, "Charge and Mass Transport in Ionic Solids," at South Carolina Academy of Sciences meeting March 27-29 in Charleston.

Prof. Laskar also presented a paper co-authored by K. A. Wagner (Grad Stu) and D. L. Foster (Grad Stu), "Ionic Transport in Rubidium Azide," at the American Physical Society meeting March 31 - April 3, Denver, Colo.

R. L. Chaplin (Prof) presented a paper co-authored by M. G. Miller (Assoc Prof), "The Decay of Interstitials by Correlated Recovery in Aluminum," at the American Physical Society meeting March 31 - April 3, Denver, Colo.

"Tachyon Cosmology," by John R. Ray (Assoc Prof) was a recent publication in Journal Lettere Al Nuovo Cimento, Vol. 12, p. 249, 1975.

"Palatini Variational Principle," by Prof. Ray was a recent publication in Journal Il Nuovo Cimento, Vol. 25B, p. 706, 1975.

POLITICAL SCIENCE

Mary Jeanne Reid Martz (Asst Prof) has been awarded a grant from American Philosophical Society to engage in research this summer in Venezuela.

PSYCHOLOGY

The following members of the Psychology Department participated in the program of the twenty-first annual meeting of the Southeastern Psychological Association in Atlanta March 27-29.

Leonard Berger (Asst Prof) presented a paper, "Rehabilitating the handicapped for full employment," and served as symposium chairman.

Prof. Berger co-authored a paper, "Attitudinal and behavior acceptance of religious and racial groups into fraternities and sororities," with Paul Schwerger of Notre Dame University.

Prof. Berger also served as symposium chairman on "Prosocial behavior and altruism."

Prof. Berger, Elizabeth Franklin (Stu) and Michael D. McMillan (1974 Grad) presented a paper, "Matching pupil characteristics to classroom structures."

Bernard Caffrey (Assoc Prof and Hd) chaired a session, "Attitude Change."

Prof. Caffrey also presented a paper, "Personality characteristics, SAT scores and high school class rank as differential predictors of success in college."

David J. Senn (Assoc Prof) chaired a paper session, "Interpersonal Attraction."

Joseph G. Nesbitt (Asst Prof) presented a paper, "Recognition and free recall of nouns from similes as a function of ease of comprehension."

George O'Neill (Asst Prof) co-authored a paper, "An analysis of test item type as a determinant of college student academic performance and study behavior," with James Johnston of Georgia State University.

Prof. Caffrey chaired and participated in a symposium, "The general psychology course: To be or not to be?" Other discussants were Prof. Senn and N. Spurgeon Cole (Assoc Prof). Topics included factor analysis, the modular and traditional approaches and a multiple direction series.

SOCIOLOGY

Ronald J. Knapp (Assoc Prof) and William C. Capel (Assoc Prof) presented (with D. Youngblood, Duke Univ) a paper, "Anxiety in the Deep: A Study of Under-Sea Divers in Controlled Dangerous Situations," at the Southern Sociological Society meetings in Washington, D. C., April 9-12.

Larry G. Peppers (Asst Prof) chaired a section on the Sociology of Aging at the Southwestern Social Science Association meetings in San Antonio, Texas, March 26-29.

ENROLLMENT BY MAJOR AND CLASS, ALL STUDENTS
SECOND SEMESTER, 1974-1975

ENROLLMENT BY MEN AND WOMEN - FULL TIME AND PART TIME
CLEMSON UNIVERSITY

Classification	-----Men-----			-----Women-----			-----Total-----		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
1st Semester Freshman	780	24	804	360	27	387	1,140	51	1,191
2nd Semester Freshman	545	1	546	375	15	390	920	16	936
Sub-Total	1,325	25	1,350	735	42	777	2,060	67	2,127
1st Semester Sophomore	552	11	563	210	18	228	762	29	791
2nd Semester Sophomore	652	11	663	416	19	435	1,068	30	1,098
Sub-Total	1,204	22	1,226	626	37	663	1,830	59	1,889
1st Semester Junior	584	16	600	233	18	251	817	34	851
2nd Semester Junior	726	13	739	421	9	430	1,147	22	1,169
Sub-Total	1,310	29	1,339	654	27	681	1,964	56	2,020
1st Semester Senior	423	11	434	162	6	168	585	17	602
2nd Semester Senior	735	69	804	320	36	356	1,055	105	1,160
Sub-Total	1,158	80	1,238	482	42	524	1,640	122	1,762
Total	4,997	156	5,153	2,497	148	2,645	7,494	304	7,798
Graduate - Master's Level	483	315	798	135	423	588	618	738	1,356
Postgraduate	33	21	54	3	13	16	36	34	70
Non-degree	3	4	7	1	4	5	4	8	12
Graduate - PhD Level	130	51	181	12	3	15	142	54	196
Total	649	391	1,040	151	443	594	800	834	1,634
GRAND TOTAL	5,646	547	6,193	2,648	591	3,239	8,294	1,138	9,432
Clemson-Furman MBA Program	6	126	132	1	5	6	7	131	138
Institutes	0	427	427	0	833	833	0	1,260	1,260
UNIVERSITY TOTAL	5,652	1,100	6,752	2,649	1,429	4,078	8,301	2,529	10,830

Total Enrollment by Courses and Academic Classification
Clemson University
Second Semester, 1974-1975

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	PhD	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Agriculture (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Agriculture	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Agricultural Economics	2	2	4	6	4	2	8	6	0	0	0	15	8	0	57
Agricultural Engineering	9	6	5	6	3	3	0	5	0	0	0	1	6	0	44
Agric Mech and Business	4	4	3	2	7	1	2	2	0	0	0	2	0	0	27
Agronomy	4	8	5	3	12	9	2	5	0	0	0	7	1	0	56
Animal Industries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animal Physiology	0	0	0	0	0	0	0	0	0	0	0	2	11	0	13
Animal Science	6	12	18	16	14	22	14	19	0	0	0	8	0	0	129
Community & Rural Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dairy Science	3	1	1	3	2	2	0	7	0	0	0	3	0	0	22
Economic Biology	2	3	2	3	2	1	1	0	0	0	0	0	0	0	14
Economic Zoology	2	0	1	3	2	4	0	1	0	0	0	0	0	0	13
Entomology	0	0	0	0	0	2	4	4	0	0	1	17	8	0	36
Food Science	3	3	1	5	5	10	5	2	0	0	0	0	0	0	34
Horticulture	21	16	11	14	24	12	13	11	0	0	1	17	0	0	140
Nutrition	0	0	0	0	0	0	0	0	0	0	0	23	5	0	28
Plant Pathology	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Plant Physiology	0	0	0	0	0	0	0	0	0	0	0	3	10	0	13
Plant Science	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
Poultry Science	2	0	2	1	2	1	0	2	0	0	0	5	0	0	15
Pre-Veterinary	24	25	7	3	1	2	0	3	0	0	0	0	0	0	64
Wildlife Biology	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16
College Total	83	80	60	66	79	71	49	66	0	0	2	124	50	0	730
Architecture (Non-Degree)	0	0	1	0	0	0	0	0	0	0	2	6	0	0	9
Architecture	0	1	1	0	0	0	1	0	0	0	3	51	0	0	57
Building Construction	2	7	12	13	17	28	13	39	0	0	3	0	0	0	134
City and Regional Planning	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26
Pre-Architecture (BA)	9	20	18	19	9	30	15	33	0	0	4	0	0	0	157
Pre-Architecture	30	29	17	32	10	26	7	19	0	0	2	0	0	0	172
Visual Studies	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8
College Total	41	57	49	64	36	84	36	91	0	0	15	90	0	0	563

Total Enrollment by Courses and Academic Classification

Clemson University

Second Semester, 1974-1975

Page Two

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	PhD	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Education (Non-Degree)	0	0	0	0	0	0	0	0	0	0	1	193	0	0	194
Education	1	0	0	0	0	0	0	0	0	0	2	0	0	0	3
Administration and Supervision	0	0	0	0	0	0	0	0	0	0	0	73	0	0	73
Agricultural Education	5	5	4	4	4	10	3	13	0	0	0	17	0	0	65
Early Childhood Education	24	19	21	25	20	40	17	36	0	0	1	0	0	0	203
Elementary Education	43	48	31	77	41	79	41	67	0	0	0	119	0	0	546
Industrial Education	11	3	20	13	26	18	11	25	0	0	1	21	0	0	149
Personnel Services	0	0	0	0	0	0	0	0	0	0	0	110	0	0	110
Reading	0	0	0	0	0	0	0	0	0	0	0	66	0	0	66
Science Teaching	2	4	3	5	5	8	7	14	0	0	0	0	0	0	48
Secondary Education	26	18	17	41	29	70	38	69	0	0	4	58	0	0	370
College Total	112	97	96	165	125	225	117	224	0	0	9	657	0	0	1827
Engineering (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	22	0	0	22
Engineering	9	4	0	1	0	1	0	0	0	0	0	0	0	0	15
Bio-engineering	0	0	0	0	0	0	0	0	0	0	0	15	6	0	21
Ceramic Engineering	6	2	1	6	4	11	5	9	0	0	0	9	0	0	53
Chemical Engineering	38	25	10	16	8	25	6	29	0	0	0	18	0	0	183
Civil Engineering	61	27	22	37	28	34	12	42	0	0	0	22	5	1	291
Electrical Engineering	65	30	26	44	23	38	25	43	0	0	2	17	7	0	320
Engineering Analysis	2	6	3	5	1	4	2	6	0	0	0	0	0	0	29
Engineering Mechanics	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
Engineering Technology	13	2	6	11	11	9	13	11	0	0	0	0	0	0	76
Environmental Systems Engineering	0	0	0	0	0	0	0	0	0	0	0	27	6	0	33
Materials Engineering	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Mechanical Engineering	31	30	19	18	16	18	7	28	0	0	0	22	3	0	192
Systems Engineering	0	0	0	0	0	0	0	0	0	0	0	8	5	0	13
Water Resources Engineering	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
College Total	225	126	87	138	91	140	70	168	0	0	2	171	43	1	1262

Total Enrollment by Courses and Academic Classification
 Clemson University
 Second Semester, 1974-1975
 Page Three

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	Phd	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
IM and TS (Non-Degree)	0	0	0	0	1	0	0	0	0	0	0	7	0	0	8
Accounting	21	27	12	25	16	21	9	24	0	0	2	0	0	0	157
Administrative Management	103	85	79	93	98	101	71	65	0	0	0	0	0	0	695
Economics (BA)	4	7	7	3	6	8	8	8	0	0	0	12	0	0	63
Economics	1	2	1	1	1	1	0	0	0	0	0	0	0	0	7
Engineering Management	0	0	0	0	0	0	0	0	0	0	0	3	22	0	25
Financial Management	49	25	33	32	30	33	11	38	0	0	1	0	0	0	252
Industrial Management	16	4	15	11	9	13	10	12	0	0	0	1	0	0	91
Management	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15
Management Science	0	0	0	0	0	0	0	0	0	0	0	1	7	0	8
Textile and Polymer Science	0	0	0	1	0	0	0	0	0	0	0	2	8	0	11
Textile Chemistry	2	5	0	2	5	5	0	3	0	0	0	12	0	0	34
Textile Science	1	0	1	1	1	1	1	3	0	0	0	5	0	0	14
Textile Technology	9	9	8	6	7	7	4	3	0	0	0	0	0	0	53
College Total	206	164	156	175	174	190	114	156	0	0	3	58	37	0	1433
Liberal Arts (Non-Degree)	0	1	0	0	0	0	0	0	0	0	0	2	0	0	3
Liberal Arts	21	16	4	8	4	0	1	0	0	0	1	0	0	0	55
English	13	28	20	22	25	8	16	34	0	0	0	47	0	0	213
French	2	3	2	1	3	6	3	3	0	0	0	0	0	0	23
German	1	1	0	1	3	0	1	1	0	0	0	0	0	0	8
History	23	11	12	17	13	11	4	14	0	0	1	11	0	0	117
Political Science	33	37	24	32	25	36	19	26	0	0	0	0	0	0	232
Psychology	31	36	35	44	39	51	25	49	0	0	0	0	0	0	310
Sociology	5	10	10	11	11	18	9	13	0	0	0	0	0	0	87
Spanish	4	5	2	4	3	8	2	2	0	0	0	0	0	0	30
College Total	133	148	109	140	126	138	80	142	0	0	2	60	0	0	1078

Total Enrollment by Courses and Academic Classification
 Clemson University
 Second Semester, 1974-1975
 Page Four

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	Phd	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Nursing (Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Nursing AA	6	22	12	22	13	3	1	1	0	0	2	0	0	0	82
Nursing	67	21	25	72	19	70	13	60	0	0	0	1	0	0	348
College Total	73	43	37	94	32	74	14	61	0	0	2	1	0	0	431
Sciences (Non-Degree)	0	0	0	0	0	0	0	1	0	0	0	10	0	0	11
Biochemistry	0	0	0	0	0	0	0	0	0	0	0	18	1	0	19
Biology	2	0	1	1	0	0	1	0	0	0	1	0	0	0	6
Botany	7	3	3	3	0	4	1	3	0	0	0	9	0	0	33
Chemical Physics	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Chemistry (BA)	1	0	1	2	1	5	1	5	0	0	0	0	0	0	16
Chemistry	3	9	3	5	8	4	4	9	0	0	0	14	16	0	75
Geology (BA)	0	2	0	0	1	1	0	6	0	0	0	0	0	0	10
Geology	3	0	1	3	3	3	1	3	0	0	0	0	0	0	17
Mathematics (BA)	5	10	8	6	3	6	2	4	0	0	0	0	0	0	44
Mathematics	13	18	10	31	10	18	7	15	0	0	1	53	22	0	198
Medical Technology	22	11	5	10	7	13	0	0	0	0	0	0	0	0	68
Microbiology	15	11	34	48	24	36	17	29	0	0	0	25	0	1	240
Physics (BA)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Physics	7	4	4	6	3	7	0	7	0	0	0	12	18	0	68
Pre-Dentistry	0	1	0	0	1	9	1	6	0	0	0	0	0	0	18
Pre-Medicine	0	0	2	4	13	18	3	11	0	0	2	0	0	0	53
Pre-Medicine Core	54	46	4	2	1	1	0	0	0	0	0	0	0	0	108
Pre-Pharmacy	6	19	3	13	3	1	0	1	0	0	1	0	0	0	47
Pre-Physical Therapy	9	3	0	1	1	1	0	0	0	0	0	0	0	0	15
Zoology	32	22	31	34	33	26	18	41	0	0	3	22	8	0	270
College Total	179	159	110	169	112	153	56	141	0	0	8	163	66	1	1317

Total Enrollment by Courses and Academic Classification
 Clemson University
 Second Semester, 1974-1975
 Page Five

Major Course	Freshman (Semester)		Sophomore (Semester)		Junior (Semester)		Senior (Semester)		Five-Year (Semester)		Post Grad	Mast	Phd	Uncl	Total
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd					
Forest and Recreational Resources															
(Non-Degree)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Forest Management	49	25	33	31	17	24	24	42	0	0	2	11	0	0	258
Recreation and Park Administration	78	32	50	54	57	69	42	69	0	0	1	20	0	0	472
Wood Utilization	2	3	2	1	1	1	0	0	0	0	0	0	0	0	10
College Total	129	60	85	86	75	94	66	111	0	0	3	32	0	0	741
Non-Degree															
College Total	10	2	2	1	1	0	0	0	0	0	24	0	0	10	50
	10	2	2	1	1	0	0	0	0	0	24	0	0	10	50
UNIVERSITY TOTAL															
	1191	936	791	1098	851	1169	602	1160	0	0	70	1356	196	12	9432

CLEMSON UNIVERSITY

Registrar's Office

April 1, 1975

GRADE-POINT RATIO TABLES *

TABLE I. CUMULATIVE GRADE-POINT RATIOS OF ALL FEMALES ENROLLED FOR THE SECOND SEMESTER 1974-75 (Exclusive of Graduates, Postgraduates, Unclassified and Second Semester Entering Students)

Cumulative Grade-Point Ratios	Students Enrolled for the Second Semester 1974-75				
	Freshmen	Sophomores	Juniors	Seniors	Total
3.80-4.00	46	21	34	27	123
3.60-3.79	31	42	39	44	156
3.40-3.59	43	34	45	40	162
3.20-3.39	55	45	65	52	217
3.00-3.19	76	71	74	63	284
2.80-2.99	56	60	70	61	247
2.60-2.79	75	63	62	65	265
2.40-2.59	72	75	81	67	295
2.20-2.39	76	60	69	47	252
2.00-2.19	85	62	50	27	224
1.80-1.99	41	46	33	21	141
1.60-1.79	33	29	20	6	88
1.40-1.59	20	16	10	1	47
1.20-1.39	14	11	1	0	26
1.00-1.19	3	4	1	0	8
0.80-0.99	1	1	1	0	3
0.60-0.79	1	0	2	0	3
0.40-0.59	0	0	0	0	0
0.20-0.39	0	0	0	0	0
0.00-0.19	4	0	0	0	4
TOTAL	728	639	657	521	2545
MEDIAN	2.63	2.64	2.79	2.86	2.74
MEAN	2.63	2.65	2.78	2.89	2.73

*Grade point ratio information by major courses is available in departmental offices.

CLEMSON UNIVERSITY

Registrar's Office

April 1, 1975

GRADE-POINT RATIO TABLES

TABLE I. CUMULATIVE GRADE-POINT RATIOS FOR MALE STUDENTS ENROLLED FOR THE SECOND SEMESTER, 1974-75 (Exclusive of Graduates, Postgraduates, Unclassified and Second Semester Entering Students)

Cumulative Grade-Point Ratios	Students Enrolled for the Second Semester 1974-75				
	Freshmen	Sophomores	Juniors	Seniors	Total
3.80-4.00	52	16	31	25	115
3.60-3.79	36	35	50	22	143
3.40-3.59	49	42	61	41	193
3.20-3.39	68	49	60	73	250
3.00-3.19	89	80	105	105	379
2.80-2.99	85	99	110	117	411
2.60-2.79	100	110	119	147	476
2.40-2.59	123	128	142	141	534
2.20-2.39	118	122	141	193	574
2.00-2.19	173	137	181	165	656
1.80-1.99	90	108	141	148	487
1.60-1.79	104	99	104	49	356
1.40-1.59	69	73	49	10	201
1.20-1.39	42	40	15	0	97
1.00-1.19	40	15	3	0	58
0.80-0.99	11	9	5	0	25
0.60-0.79	5	4	1	0	10
0.40-0.59	6	0	2	0	8
0.20-0.39	3	1	1	0	5
0.00-0.19	14	1	0	0	15
Total	1270	1167	1320	1236	4993
Median	2.33	2.35	2.42	2.48	2.40
Mean	2.34	2.37	2.47	2.54	2.43

CLEMSON UNIVERSITY

Registrar's Office

April 1, 1975

GRADE-POINT RATIO TABLES

TABLE I. CUMULATIVE GRADE-POINT RATIOS OF ALL STUDENTS ENROLLED FOR THE SECOND SEMESTER 1974-75 (Exclusive of Graduates, Postgraduates, Unclassified and Second Semester Entering Students)

Cumulative Grade-Point Ratios	Students Enrolled for the Second Semester 1974-75				
	Freshmen	Sophomores	Juniors	Seniors	Total
3.80-4.00	98	37	65	52	238
3.60-3.79	67	77	89	66	299
3.40-3.59	92	76	106	81	355
3.20-3.39	123	94	125	125	467
3.00-3.19	165	151	179	168	663
2.80-2.99	141	159	180	178	658
2.60-2.79	175	173	181	212	741
2.40-2.59	195	203	223	208	829
2.20-2.39	194	182	210	240	826
2.00-2.19	258	199	231	192	880
1.80-1.99	131	154	174	169	628
1.60-1.79	137	128	124	55	444
1.40-1.59	89	89	59	11	248
1.20-1.39	56	51	16	0	123
1.00-1.19	43	19	4	0	66
0.80-0.99	12	10	6	0	28
0.60-0.79	6	4	3	0	13
0.40-0.59	6	0	2	0	8
0.20-0.39	3	1	1	0	5
0.00-0.19	18	1	0	0	19
Total	1998	1806	1977	1757	7538
Median	2.44	2.46	2.52	2.60	2.51
Mean	2.44	2.47	2.58	2.64	2.53

TABLE II. COMPARISON OF MEDIAN CUMULATIVE GRADE-POINT RATIOS 1970-71--1974-75

Class	Median Grade-Point Ratios				
	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.
	1970-71	1971-72	1972-73	1973-74	1974-75
Freshman	2.38	2.33	2.41	2.50	2.44
Sophomore	2.11	2.26	2.29	2.43	2.46
Junior	2.21	2.29	2.40	2.46	2.52
Senior	2.30	2.33	2.39	2.52	2.60
All Students	2.23	2.31	2.38	2.47	2.51

TABLE III. COMPARISON OF AVERAGE (MEAN) CUMULATIVE GRADE-POINT RATIOS 1970-71--1974-75

Class	Average Grade-Point Ratios				
	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.	Students Enrolled 2nd Sem.
	1970-71	1971-72	1972-73	1973-74	1974-75
Freshman	2.31	2.34	2.43	2.49	2.44
Sophomore	2.18	2.33	2.34	2.45	2.47
Junior	2.32	2.37	2.45	2.52	2.58
Senior	2.40	2.44	2.49	2.59	2.64
All Students	2.31	2.37	2.42	2.51	2.53

Minutes of The Educational Council Meeting, April 7, 1975

Present: Robert C. Edwards, presiding;
Victor Hurst, Walter T. Cox, Stanley G.
Nicholas, Joseph B. McDevitt, Melford A.
Wilson, Luther P. Anderson, H. Morris
Cox, J. W. Gordon Gourlay, Claud B.
Green, Geraldine Labecki, Harold F.
Landrith, Melvin C. Long, James E. Dalton,
W. H. Davis McGregor, A. E. Schwartz, C.
R. Dillon, W. D. Trevillian, K. N. Vickery,
Henry E. Vogel, Lyle C. Wilcox, S. M.
Willis and E. N. Tyndall, Secretary.

1. Minutes

The minutes of the meeting of March 3,
1975, were approved as submitted.

2. Curriculum Changes

Statement and Recommendation: The Dean
of the University recommended additions,
deletions and changes in the curricula,
effective when designated on the appro-
priate Request for Approval forms as
follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

A. Graduate Course Change:

Nutr 704

Food Service Systems, 3 cr. (3 and 0)
(Change in course title only)

B. New Graduate Courses:

AgM 851

Simulation of Agricultural Systems,
3 cr. (3 and 0)

WB 840

Impoundment and Stream Management, 3
cr. (2 and 3)

WB 856

Directed Studies & Field Work in
Marine Biology, 4 cr. (2 and 6)

II. COLLEGE OF LIBERAL ARTS

A. The Dean of the University recommended
that the request of the Department of
Political Science and the College of
Liberal Arts that Experimental Statistics
301 no longer be a required course in the

Political Science Major Concentration be
approved.

III. COLLEGE OF SCIENCES

A. New Graduate Courses:

Math 702

Modern Mathematics for Elementary School
Teachers - Number Systems II, 3 cr.
(3 and 0)

Math 725

Combinatorial Mathematics for Teachers,
3 cr. (3 and 0)

Math 730

Modern Geometry for Teachers, 3 cr.
(3 and 0)

Math 772

Numerical Methods in Secondary Mathema-
tics II, 3 cr. (3 and 0)

B. Graduate Course Deletions:

Math 622

Mathematical Logic, 3 cr. (3 and 0)

Math 624

Foundations of Mathematics, 3 cr. (3
and 0)

Math 625

Intermediate Differential Equations,
3 cr. (3 and 0)

Math 876

Convexity II, 3 cr. (3 and 0)

Math 883

Theory of Numbers, 3 cr. (3 and 0)

Math 885

Projective Geometry, 3 cr. (3 and 0)

Math 903

Adv. Stochastic Processes, 3 cr. (3
and 0)

Math 921

Abstract Harmonic Analysis, 3 cr. (3
and 0)

Math 945

Potential Theory, 3 cr. (3 and 0)

C. Undergraduate Course Deletions:

CpSc 210

Digital Computation and Numerical Methods
for Engineers, 3 cr. (3 and 0)

Math 422

Mathematical Logic, 3 cr. (3 and 0)

Math 424

Foundations of Mathematics, 3 cr. (3
and 0)

Math 425

Intermediate Differential Equations, 3 cr. (3 and 0)

Math H482

Honors Seminars in Mathematics, 3 cr. (3 and 0)

Action: Approved.3. Clemson University Calendar -- 1976-77

The Dean of the University recommended the following Clemson University 1976-77 Calendar be approved:

FALL SEMESTER
(74 Class Days)

August 16-17 - Monday-Tuesday--Orientation, new students
 August 18 - Wednesday--Registration, all students
 August 19 - Thursday--Late registration
 August 20 - Friday--Late registration fee applies
 August 20 - Friday--Classes begin regular schedule
 August 26 - Thursday--Last day for registration
 August 26 - Thursday--Last day to add a subject
 September 9 - Thursday--Last day to order diploma for mid-year graduation
 September 16 - Thursday--Last day to drop a subject without record
 October 11 - Monday--Preliminary reports due
 October 27 - Wednesday--Last day to drop a subject or withdraw from the University without receiving final grades
 November 8-12 - Monday-Friday--Preregistration
 November 24 - Wednesday--Thanksgiving holidays begin after last class
 November 29 - Monday--Classes resume
 December 6 - Monday--Examinations begin
 December 16 - Thursday--Mid-year graduation

SPRING SEMESTER
(72 Class Days)

January 3 - Monday--Orientation, new students
 January 4 - Tuesday--Registration, all students

January 5 - Wednesday--Late registration
 January 6 - Thursday--Late registration fee applies
 January 6 - Thursday--Classes begin regular schedule
 January 12 - Wednesday--Last day for registration
 January 12 - Wednesday--Last day to add a subject
 January 26 - Wednesday--Last day to order diploma for May graduation
 February 2 - Wednesday--Last day to drop a subject without record
 February 28 - Monday--Preliminary reports due
 March 11 - Friday--Last day to drop a subject or withdraw from the University without receiving final grades
 March 11 - Friday--Spring holidays begin after last class
 March 21 - Monday--Classes resume
 April 6 - Wednesday--Honors and Awards Day; classes suspended at 12 noon
 April 11-15 - Monday-Friday--Preregistration
 April 25 - Monday--Examinations begin
 May 6 - Friday--Commencement

SUMMER SESSION 1977
(26 Class Days Each Session)

(Classes Meet Monday-Friday Except as Indicated)

FIRST SESSION

May 16 - Monday--Registration
 May 17 - Tuesday--Classes begin
 June 22-23 - Wednesday-Thursday--Examinations

SECOND SESSION

June 27 - Monday--Orientation, new students
 June 28 - Tuesday--Registration
 June 29 - Wednesday--Classes begin
 July 4 - Monday--Classes suspended
 July 9 - Saturday--Classes meet
 July 30 - Saturday--Classes meet
 August 3-4 Wednesday-Thursday--Examinations
 August 6 - Saturday--Graduation

Action: Approved.

E. N. Tyndall, Secretary

Minutes of The Graduate Council Meeting, March 14, 1975

The Graduate Council convened at 3 p.m. in the Conference Room of E-103 Martin Hall. The meeting was called to order by Dean Schwartz with the following present: Dr. Brown, Dr. Edge (for Dr. Dysart), Dr. Byrns (for Dr. Macaulay), Dr. Gahan, Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Rodgers, Dr. Henricks, Professor Falk, Dr. Tanner and Dr. Maxwell. Dr. Fulton attended as a visitor.

The minutes of the February 14, 1975, meeting were approved with one change.

The following new courses and changes were approved:

COLLEGE OF AGRICULTURAL SCIENCES

AgM 851

Simulation of Agricultural Systems

Nutr 704

Food Service Systems (course title change)

WB 840

Impoundment and Stream Management

WB 856

Directed Studies and Field Work in Marine Biology

A request to delete the following courses was also approved:

COLLEGES OF SCIENCES

Math 876

Convexity II

Math 883

Theory of Numbers

Math 885

Projective Geometry

Math 903

Advanced Stochastic Processes

Math 921

Abstract Harmonic Analysis

Math 945

Potential Theory

Dr. Fulton, Department of Mathematical Sciences, discussed the following courses which were resubmitted and approved:

COLLEGE OF SCIENCES

Math 702

Modern Mathematics for Elementary School Teachers - Number Systems II

Math 725

Combinatorial Mathematics for Teachers

Math 730

Modern Geometry for Teachers

Math 772

Numerical Methods in Secondary Mathematics II

The following courses were approved by mail ballot and/or telephone:

COLLEGE OF AGRICULTURAL SCIENCES

Agron 604

Soils and Land Use

COLLEGE OF ARCHITECTURE

CRP 621

Urban Social Structure (change in hours)

CRP 672

Implementation of the Local Planning Process (change in course description and title)

COLLEGE OF ENGINEERING

SE 890

Special Topics in Systems Engineering (change in hours)

SE 895

Systems Engineering Seminar

COLLEGE OF SCIENCES

Bioch 606

Physiological Chemistry (change in hours)

Bioch 608

Physiological Chemistry Laboratory

The following course was tabled pending further consultation with the department:

COLLEGE OF AGRICULTURAL SCIENCES

Ex St 807

Research Data Processing

The editorial changes for the catalog of the residence requirements for the Master of Science, Master of Arts and Doctor of

Philosophy degrees were discussed and a copy of the revised statements on residency were presented to the Council.

Dr. Mandel, chairman of the subcommittee on graduate admission requirements, reported that only one or two has responded to the request for input from the colleges. He stated that if nothing more was received immediately after spring break, that the subcommittee would meet and act on the information on hand and report at the next Graduate Council meeting.

Dr. Henricks, chairman, distributed recommendations from the subcommittee on course duplication. The following recommendations were presented as information.

1. Any course, 700, 800 or 900 level, that has not been taught within the last three or more years should be deleted from the upcoming graduate catalog unless written justification is prepared by a faculty member of the academic program concerned. Such justification should receive the recommendation of the dean of that college. If justified, the course can remain in the catalog up to an additional two years; if not taught within that time, it will be deleted.

2. Programs should be encouraged to offer all courses required for Masters degree seeking students at least every two years, and all courses required for Ph.D. degree seeking students at least every three years.

3. Departments and programs should be encouraged to use the necessary space under departmental description in the graduate catalog to convey to the reader the breadth of expertise of the faculty that is available to the prospective student. Additional information on the subject matter available to the student can be provided in the description of special topics courses, seminars, or special problems.

Dr. Maxwell, chairman of the subcommittee on selected topics and seminars, distributed information compiled by his committee to be discussed at the next meeting. Dean

Schwartz indicated that this would be among the first items of business on the April agenda.

A motion was made, seconded and passed to adjourn.

Minutes of The University Library Committee Meeting, March 10, 1975

PRESENT: Hewitt D. Adams (Chairman), April Baker, Ursula A. Holahan, Gordon E. Howard, Kenneth J. Russo, Doris R. Helms, J. W. Gordon Gourlay (Secretary).

1. Minutes of the meeting of February 10 were approved.

2. Mr. Gourlay presented the following for information.

- 1) Mr. Gourlay had requested Mr. W. Harry Durham, Director of the University Communications Center, to find out the cost of installing closed-circuit television in the basement of the library. These cameras would be monitored both on the Main Floor and in the Science, Technology and Agriculture Division. The purpose as explained at the February meeting was to provide greater security for persons using the basement area of the library.

- 2) Plans had been made to move the books and stacks from the old library of the College of Architecture to the area that the library would occupy on two floors of the new addition to Lee Hall. It was anticipated that the move could be made during the spring break and that the library would be ready for operation when the students returned to classes on March 24.

- 3) Final drawings had been received from the architects for the Second Floor Expansion. Plans had been made to move the complete collection of books to the basement and to set up all services in the basement during the period of time that construction was in progress. By packing up some lesser used materials, the book collections and current issues of periodicals could be shelved in the basement. A request had been made to have a telephone

extension and provision for outlets for the Xerox machine and electric typewriters. An outline schedule of work had been drawn up by the architects. But as yet we did not know how closely the schedule could be followed.

3. Time of next meeting: Monday, April 14, at 3:30 p.m.

J. W. Gordon Gourlay, Secretary
University Library Committee

Minutes of The University Audio-Visual Committee Meeting, March 4, 1975

Present: R. P. Ashworth, W. H. Durham, Opal S. Hipps, J. C. Hubbard Jr., M. W. Jutras, D. D. Moyle, R. D. Riley, C. B. Russell, E. L. Wall, Samuel Wang and Ron Mattox (for Betty Watkins).

Dr. Jutras opened the meeting and the minutes of February 4, 1975, were corrected and approved.

Old Business:

Mr. Jack Wilson will advise the appropriate administrative officers of the University of the availability of the services of the Communications Center as an advisor on any new purchases of audio-visual equipment.

Prof. Wang reported on the Audio-Visual Show of February 25-26, 1975. The first day flow of traffic was good. Dr. Moyle suggested that exhibitors show more basic educational A-V equipment and literature with the understanding that this show is for evaluation and information, not necessarily purchase.

The report of the review on the services provided by the Communications Center was referred back to the sub-committee. A letter from Dr. H. M. Cox, Dean of the College of Liberal Arts, was read to the Committee expressing his appreciation for the repair services being rendered by the Communications Center.

Dr. Ashworth moved and Prof. Wang seconded a motion as follows: The Communications Center offer preventative maintenance,

when practical and feasible, on A-V equipment as a part of their service and the Center provide a temporary replacement for such equipment. The motion was passed unanimously.

Prof. Wall reported that he had contacted Prof. H. D. Adams of the Library Committee with the proposal for development of a master file on software within the University. Prof. Adams recommended that Prof. Wall talk with the Director of the Library, Mr. J. W. G. Gourlay.

New Business:

Dr. Jutras posed the question, "What can we do to best implement the proper and effective use of A-V instructional media?" Prof. Wang suggested that space and personnel be available, in the Continuing Education Center, to present workshops, involving knowledgeable personnel, to assist in the preparation and most effective presentation of material. Mr. Riley felt that two or three workshops or seminars should be offered each year covering not only "what you could expect from the A-V hardware, but also what equipment is available." Recommendations will be made at a future meeting.

Approved April 1, 1975.

Respectfully submitted,
J. C. Hubbard Jr., Secretary

THE ALGERNON SYDNEY SULLIVAN AWARD: NON-STUDENT RECIPIENTS

During the past twenty-five years Clemson University has awarded the Algernon Sydney Sullivan Award of the New York Southern Society to the following non-student recipients: 1951 - C. E. Daniel; 1952 - J. E. Hunter; 1953 - M. E. Bradley; 1954 - D. W. Daniel; 1955 - S. R. Rhodes; 1956 - R. B. Holtzendorff Jr.; 1957 - S. J. L. Crouch; 1958 - A. B. Bryan; 1959 - Helen Coker; 1960 - C. C. Bennett; 1961 - J. D. Lane; 1962 - B. E. Goodale; 1963 - R. M. Cooper; 1964 - Frank J. Jervey; 1965 - C. A. Arrington; 1966 - Virginia Earle Shanklin; 1967 - James Robert Roy Cooper; 1968 - James Francis Byrnes; 1969 - Inez Watson; 1970 - George Hubert

Aull; 1971 - Gaston Gage; 1972 - Gertrude Bailey; 1973 - Josephine Stribling Lazar; 1974 - Everett Laitala; 1975 - Kenneth Notley Vickery.

SENIOR FULBRIGHT-HAYS PROGRAM FOR 1976-77

The Council for International Exchange of Scholars announces that applications are now being accepted for senior Fulbright-Hays awards for university lecturing and advanced research in over 75 countries during 1976-77. The booklet on the program for this period is available on request to the Council (2101 Constitution Avenue, N. W., Washington, D. C. 20418), and it may be consulted at the office of the Faculty Fulbright Adviser, Hugh H. Macaulay, 206 Sirrine Hall (telephone 3497).

Application requirements include: U. S. citizenship; for lectureships, college or university teaching experience; for research awards, a doctorate or, in some

fields, recognized professional standing as demonstrated by faculty rank, publications, compositions, exhibition record, etc. Some awards are open to application by advanced doctoral candidates.

July 1, 1975, is the deadline for applying for most of the announced research awards, and it is the suggested date for filing for lectureships.

Senior Fulbright-Hays awards generally consist of a maintenance allowance in local currency to cover normal living costs of the grantee and family while in residence abroad, and roundtrip travel for the grantee (transportation is not provided for dependents). For lecturers going to most non-European countries, the award includes a dollar supplement, subject to the availability of funds, or carries a stipend in dollars and foreign currency, the amount depending on the assignment, the lecturer's qualifications, salary other factors.

Calendar of Campus Events

- 1-3 Movie: Paint Your Wagon, sponsored by the University Union. 6:40 and 9:00 p.m., YMCA Theater, I. D. required.
- 4-14 Architecture Exhibition: "Dan Brown - MFA Thesis Exhibit," an exhibit of paintings and sculpture from a Clemson MFA candidate and winner of the Greenville Artist Guild 1974 Annual Spring Exhibit. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 5-8 Open House: "Innovative Instruction Open House," sponsored by the College of Engineering Effective Teaching Committee and the University Audio Visual Committee. 9:00 a.m. - 4:30 p.m. at various learning centers and laboratories on campus, open to interested faculty and staff. For further information contact Dave Moyle, 301 Rhodes, 656-3052.
- 8 -- General Faculty Meeting, 10:00 a.m., Tillman Hall Auditorium.
- 9 -- Commencement, 11:15 a.m., Littlejohn Coliseum.



PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 18

CLEMSON UNIVERSITY LIBRARY
SOUTH CAROLINA ROOM

May 15, 1975

NATIONAL HONOR SOCIETY IN PSYCHOLOGY INSTALLED APRIL 24

A Clemson University Chapter of Psi Chi, the National Honor Society in Psychology, was installed April 24, 1975. Psi Chi is an affiliate of the American Psychological Association and a member of the Association of College Honor Societies.

The purpose of Psi Chi is to advance the science of psychology; and to encourage, stimulate and maintain scholarship of the individual members in all fields, particularly in psychology.

Fifty-eight persons were initiated as charter members of the local society, 44 students and 14 faculty. Dr. Charles Brewer, chairman of the department of psychology at Furman University, presided at the installation ceremony.

ACCOUNTING AND FINANCE

Richard Calvasina (Asst Prof) was elected director of professional development of the Anderson chapter of the National Association of Accountants for the period September 1975 through August 1976.

BOTANY

J. E. Fairey (Asst Prof) presided at the botany section of the 48th annual meeting of the South Carolina Academy of Sciences in Charleston March 28 where the following papers were presented:

"A Review of the Mountain Flora of the William Bartram Trail in South Carolina" by G. C. Kingsland (Assoc Prof, Plant Path and Phys) and J. E. Fairey.

"Distributional Patterns in the Prunus umbellata Ell. Species Complex" by H. J. Bickley Jr. (Grad Stu) and J. E. Fairey.

MAY 13 1975
"Distributional Study of Two Allopatric Members of Leucothoe (Ericaceae)" by N. C. Melvin (Grad Stu) and J. E. Fairey.

"Plants New to South Carolina" by J. E. Fairey and R. W. Gettman (Univ of Ga).

At the 36th annual meeting of the Association of Southeastern Biologists held at Virginia Polytechnic Institute and State University in Blacksburg, Va., April 17-19, the following papers were presented:

"Some Pollen Inhabiting Chytrids (CHytridiales) from Granite Outcrop Soils," R. D. Banta (Grad Stu) and C. J. Umphlett (Prof and Hd).

"A Study of the Prunus umbellata Ell., Species Complex," by H. J. Bickley (Grad Stu) and J. E. Fairey.

"Taxonomic Status of Two Evergreen Members of Leucothoe (Ericaceae)" N. C. Melvin (Grad Stu) and J. E. Fairey.

"Problems in the Southeastern Stachys (Lamiaceae)" - J. B. Nelson (Grad Stu) and J. E. Fairey.

"Nomenclatural Changes in the North American Species of Scleria (Cyperaceae), Sections Hypoporum and Scleria," J. E. Fairey.

CHEMISTRY

Don C. Beer (Asst Prof) presented a seminar at the University of Southern Mississippi March 21 entitled "Recent Advances in Metallo-borane Chemistry."

CIVIL ENGINEERING

Subhash C. Anand (Assoc Prof) presented two papers at the American Society of the

Civil Engineers National Structural Engineering Convention held in New Orleans April 14-18. The first paper was entitled "Inelastic Analysis of a Rolling Contact Problem." The second paper was jointly authored with J. J. Klawitter (Assoc Prof, Div of Interdis Studies) and A. M. Weinstein (Asst Prof, DIS). The paper was entitled "A Finite Element Analysis of Alumina, Polymethylmethacrylate and Cobalt Chromium Alloy Artificial Teeth."

Subhash C. Anand is also a co-author with A. M. Weinstein, J. J. Klawitter and R. Adams (Grad Stu, DIS) of a paper, "Finite Element Stress Analysis of Artificial Teeth," presented at the 7th Annual International Biomaterials Symposium, Clemson University, April 26-30.

J. Edwin Clark (Assoc Prof) and Howard R. Chapman (Dir of Traffic and Transportation, City of Charleston) published a paper, "Application of RUNCOST for Evaluation of a Hybrid Traffic Control System," in Traffic Engineering, April 1975.

COLLEGE OF ARCHITECTURE

Samuel Wang (Assoc Prof) was general chairman in the area of curriculum at the national conference of the Society for Photographic Education held at the Asilomar Conference Center in Monterey, Calif., March 23-27. His photographs are included in an exhibition of twelve photographers' work at the Addison Gallery of American Art in March and April.

Tom Dimond (Coord of Ed Med and Exh) participated in a panel and open discussion of legal aspects of museum administration at a conference sponsored by the American Legal Institute and American Bar Association in Washington, D. C., at the Hirschorn Museum, Smithsonian Institution, March 22-24.

Robert England (Assoc Prof) delivered a paper, "Design of Western Facades of Certain French Romanesque Churches," at the third annual Mediaeval Conference which was held in Louisville, Ky., March 21-22. The conference was sponsored by the University of Louisville and Hanover College.

Peter R. Lee (Prof) and Kenneth Russo (Assoc Prof) accompanied a group of approximately 50 students on the first "Applied Polymers of America Student Field Trip" April 16-20. The group traveled to Asheville, N. C., and Columbia, Ind., and visited a number of significant architectural works. Gerald Zakim, president of Applied Polymers of America, Clifton, N. J., sponsors this annual event through a contribution to the Clemson Architectural Foundation.

James E. Dalton (Assoc Prof, Asst to the Dean) served as delegate to the Association of Collegiate Schools of America convention in Lincoln, Neb., March 23-30. The topic was "Minorities and Women in Architecture."

ECONOMICS

Holley Ulbrich (Assoc Prof) and Maureen O'Brien (Instr) attended the Southern Regional Science Association convention in Atlanta April 3-4. Dr. Ulbrich presented a paper, "Fiscal Impact of Recreational Developments in Upstate South Carolina," based on their current research on that subject funded through the Appalachian Council of Governments.

Rodney Mabry (Asst Prof) has recently published "A Note on the Elasticity of Demand for Legal Services" in the Southern Business Review, Spring 1975.

Bruce Yandle (Assoc Prof and Hd) spoke to students and faculty at Francis Marion College April 24. The speech was a part of the college's lecture series sponsored by their department of economics and business.

ENGLISH

John Idol (Assoc Prof) published "Ahab and the 'Siamese Connection'" in the winter issue of the South Central MLA Bulletin.

ENVIRONMENTAL SYSTEMS ENGINEERING

M. J. B. Paynter (Prof and Hd, Micro) and John H. Austin (Prof and Hd) met with Dean Lynton (School of Public Health, USC)

to discuss cooperative Clemson - USC curricula for the MPH and MSPH program recently initiated.

The textbook, Environmental Systems Engineering, authored by L. G. Rich (Prof, ESE) and published in the United States by McGraw-Hill, has been printed in an instructional edition by Kogakusha, Ltd., Tokyo, Japan. This is the second book authored by Prof. Rich to be published in Japan. An earlier text, Unit Operations of Sanitary Engineering, was published both in Japan and Mexico (Spanish edition).

GEOLOGY

V. S. Griffin Jr. (Assoc Prof) presented an invited lecture on Southern Appalachian Migmatites and Structural Styles to faculty, students and visitors of the Institute of Geology at Turku University, Finland, March 22.

R. D. Hatcher Jr. (Assoc Prof) presented a paper, "Structure of the Southwest End of the Toxaway Dome, South Carolina: A Study in Macroscopic Polyphase Folding," at the annual meeting of the Southeastern Section of the Geological Society of America in Memphis, Tenn., April 9-12. He also served as co-chairman of the session on Tectonics-Geophysics April 11.

HISTORY

Jerome V. Reel Jr. (Assoc Prof) has had a book, Index to Biographies of Englishmen 1000-1485 Found in Dissertations and Theses published by the Greenwood Press of Westport, Ct. According to the publisher, "The work is based on studies in more than 150 theses and dissertations accepted by American, British and Canadian universities and colleges. It complements rather than duplicates other compendia by offering details of more recent publications on peasants, clerks, abbesses, bishops, knights, scholars, nobility, and many other individuals and groups."

INDUSTRIAL MANAGEMENT

Evans LaRoche (Prof) has been granted a sabbatical leave for the fall semester, 1975, to be spent in Spain. Prof. and Mrs. LaRoche will spend most of their time in Barcelona, but will attend the Joint European Organization for Quality Control/International Academy for Quality Conference in Venice, Sept. 16-18.

INTERDISCIPLINARY STUDIES

The following papers were presented at the 1975 General Session of the American Association for Dental Research Symposium April 6:

"Fabrication, Characterization and Evaluation of Implant Materials," by J. J. Klawitter (Assoc Prof) and A. M. Weinstein (Asst Prof).

"Finite Element Stress Analysis of Prosthetic Tooth Implants," by A. M. Weinstein, J. J. Klawitter, S. C. Anand (Assoc Prof) and R. R. Adams (Grad Stu).

L. J. Peterson and R. G. Topzian of the Medical College of Georgia and J. J. Klawitter and A. M. Weinstein presented a paper, "Clinical and Histological Evaluation of Porous Rooted Polymethylmethacrylate (PMMA) Teeth," at the 53rd General Session of the International Association for Dental Research April 11.

A. M. Weinstein presented the following seminars:

"Dental Implants Designed for Attachment by Tissue Ingrowth" April 1 to the University of Maryland School of Dentistry.

"Tissue Ingrowth into Dental Implants" April 2 at the University of Pennsylvania School of Dentistry.

"Direct Current Electrical Stimulation of Bone Growth into Porous Al₂O₃" April 3 at the Orthopedic Research Seminars at the University of Pennsylvania School of Medicine.

"Skeletal Attachment of Protheses by Tissue Ingrowth" April 7 at Union College, Department of Mechanical Engineering.

"Attachment of Protheses by Tissue Ingrowth into porous materials" April 14 at the Royal National Orthopaedic Hospital, Stanmore, England.

"Prosthesis Attachment by Bone Tissue Ingrowth" April 17 at Strathclyde University, Bioengineering Unit, Scotland. Prof. Weinstein also presented a talk entitled "Bone Tissue Ingrowth into Porous Materials - Interface Mechanics" to the Biomaterials Society at McGill University, Montreal, Canada.

LANGUAGES

The Department of Languages received a charter of the National French Honor Society Pi Delta Phi April 2, 1975. The national president, Dr. Elizabeth Brandon of the University of Houston, was present to establish the chapter.

Honorary members initiated at the time were Dr. Jerome Mandel of the Department of English, Dr. Rob Roy McGregor (chapter adviser), Miss Jo Ann McNatt, Mr. Jordan A. Dean, Mr. D. York Brannock and Mr. Daniel J. Calvez, all of the Department of Languages.

H. E. Stewart (Prof and Hd) and Raymond Sawyer (Asst Prof of English) were guests recently on the Bill Wheelless Television Talk Show and the Monty Dupuy Radio Show. Drs. Stewart and Sawyer were invited to discuss their combined efforts in presenting plays during Dionysia '75.

H. E. Stewart was invited by the Greenville News Piedmont to review the Warehouse Theatre's production of Ubu Roi. Dr. Stewart's review appeared in the Sunday, April 20, edition of the Greenville News Piedmont.

MUSIC

Edith B. Card (Instr) conducted an in-service training workshop April 17 for Elementary Music Specialists of the

Oconee Education Association. She demonstrated the teaching methods of Dalcroze, Kodaly, Orff and the Manhattenville Music Curriculum Project.

PHYSICS AND ASTRONOMY

F. J. Keller (Assoc Prof), T. P. Bishop (Ga Southern College) and G. W. Rogers (Ga Southern College) presented a paper, "A Restudy of the Optical Orientation of V_k Centers in K Cl," April 26 at the Georgia Academy of Science meeting at Savannah, Ga.

A. L. Laskar (Assoc Prof) is the recipient of a grant of \$97,987 from Army Research Office, Durham. The grant is for three years towards a project entitled, "Crystal-line Defects and their Transport in Alkali Azides." This is in continuation of an earlier grant of \$68,000 for a similar project.

"Massive Neutrinos" by John Ray (Assoc Prof) and Mike Davis (Grad Stu) was a recent publication in Physics Letters, Vol. 51A, p. 199, 1975.

F. J. Keller (Assoc Prof) presented a paper, "New and Innovative Physics Courses for High Schools," April 19 at the meeting of the South Atlantic Coast Section of the American Association of Physics Teachers at Augusta, Ga.

John P. McKelvey (Prof and Hd) is the author of "Simple Iterative Methods for the Solution of Transcendental Equations with the 'Electronic Slide Rule'" which appeared in the April 1975 issue of American Journal of Physics.

RECREATION AND PARK ADMINISTRATION

Lawrence W. Gahan (Assoc Prof) was co-conductor of a two-day training workshop for Park and Recreation Board and Commission members from throughout the state of Illinois. The workshop was held April 4-5 at the University of Illinois, Champaign-Urbana.

TEXTILE DEPARTMENT

The Color Science Center received a grant of \$1,000 from the Dry Color Manufacturers Association for laboratory teaching use. Frederick T. Simon (J. E. Sirrine Prof) gave a talk about the work at the Center for the Associations meeting April 2 at the Princeton Club in New York City.

J. J. Porter (Assoc Prof) presented a paper April 24 to the committee on dyeing theory on "Kinetics and Equilbrice of Disperse 11 on Heat-Set Polyester Fiber" at AATCC Headquarters, Research Triangle Park, N. C.

Donald W. Lyons (Assoc Prof) served as one of the seven United States delegates to the Australian-United States Cotton/Wool Technology Interchange Conference in Sydney, Australia. He presented a paper and led discussion concerning occupational safety and health problems in textile manufacturing.

John D. Hatcher (Asst Prof), K. B. Higgins (Grad Stu) and D. W. Lyons published a paper, "Analytical Solutions to the Drying of Textile Materials with Micro-wave Heating," in the Textile Research Journal.

Minutes of The Undergraduate Council Meeting, April 4, 1975

The Undergraduate Council met in the Conference Room, E-103A Martin Hall. The following were present: Dean Claud B. Green (Chairman), Luther W. Baxter, Carolyn Briscoe, Lamar H. Brown, Richard V. Calvasina, Claire O. Caskey, Bingham M. Cool, Marvin W. Dixon, James C. Fanning, Julius C. Hubbard, John K. Luedeman, Gloria Tanner and Kenneth N. Vickery.

The minutes of the March 7, 1975, meeting were approved as distributed.

COLLEGE OF AGRICULTURE

The following courses were approved:

Fd Sci 101
Epochs in Man's Struggle for Food, 1 cr.
(1 and 0)

Nutr 452

Clinical Nutrition, 3 cr. (3 and 0)

WB 460

Biology of Marine Organisms, 3 cr. (2 and 3)

WB 462

Aquatic Productivity, 3 cr. (3 and 0)

The following course change was approved:

Nutr 425

Nutrition and Dietetics, 3 cr. (3 and 0)
(Change in course designation from Fd Sci 425)

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

The following new course was approved:

Acct 416

Auditing Practice and Procedure, 3 cr.
(3 and 0)

Approval was given to the following guideline definition of the minor in Accounting:

A minor in accounting consists of fifteen (15) semester credits in accounting courses above the first course in Principles of Accounting (Acct 201) which must include Accounting 301 and Accounting 302.

COLLEGE OF LIBERAL ARTS

The following new course was approved:

Psych 315

The Psychology of Religion, 3 cr. (3 and 0)

COLLEGE OF SCIENCES

The following course change was approved:

Zool 310

Evolution, 3 cr. (3 and 0)
(Change in credit hours from 2 to 3)

Approval was given for revisions in the curriculum for the B. S. degree in chemistry. (A copy of the revised program is attached to these minutes.)

Professor Brown, chairman of the ad hoc committee to study duplication of undergraduate academic programs, presented the

report of the committee. A motion was passed to accept the report as a matter of information. (A copy of the report is attached to these minutes.)

Dean Green announced that new appointments to the Council would become effective April 15, 1975. He expressed appreciation for the participation of the two student representatives and to those members of the council whose terms expire in 1975.

Proposed Curriculum Leading to the B.S. Degree in Chemistry

Freshman Year

Ch 101	
General Chemistry	4 (3,3)
Engl 101	
English Composition	3 (3,0)
Math 106	
Calculus of One Var.	4 (4,0)
Comp Sci 205	
Elem. Comp. Prog.	3 (3,0)
Ger 101	
Elementary German*	4 (3,1)
	<u>18</u>
Ch 112	
General Chemistry	4 (3,3)
Engl 102	
English Composition	3 (3,0)
Math 108	
Cal. and Lin. Algebra	4 (4,0)
Phys 122	
Mech. and Wave Phen.	3 (3,0)
Ger 102	
Elementary German*	4 (3,1)
	<u>18</u>

Sophomore Year

Ch 223	
Organic Chemistry	3 (3,0)
Ch 225	
Organic Chemistry Lab.	2 (0,6)
Literature Requirement ⁺	3 (3,0)
Math 206	
Calculus of Sev. Var.	4 (4,0)
Phys 221	
Thermal & Elec. Phen.	3 (3,0)
Phys 223	
Physics Lab. I	1 (0,3)
	<u>16</u>
Ch 224	
Organic Chemistry	3 (3,0)

Ch 225	
Organic Chemistry Lab.	2 (0,6)
Literature Requirement ⁺	3 (3,0)
Math 208	
Engineering Math I	4 (4,0)
Phys 222	
Optics and Mod. Phys	3 (3,0)
Phys 224	
Physics Lab. II	1 (0,3)
	<u>16</u>

Junior Year

Ch 313	
Quantitative Analysis	3 (3,0)
Ch 315	
Quantitative Anal. Lab.	2 (0,6)
Ch 331	
Physical Chemistry	3 (3,0)
Ch 339	
Physical Chemistry Lab.	1 (0,3)
Elective [#]	7
	<u>16</u>
Ch 332	
Physical Chemistry	3 (3,0)
Ch 340	
Physical Chemistry Lab.	1 (0,3)
Ch 411	
Instrumental Analysis	4 (2,6)
Elective [#]	8
	<u>16</u>

Senior Year

Ch 402	
Inorganic Chemistry	3 (3,0)
Career Requirements [#]	6
Electives [#]	6
	<u>15</u>
Career Requirements [#]	4
Electives [#]	11
	<u>15</u>

130 Total semester hours

*Students planning to take biology courses register for Zool 101-103 and Bot 101-103 in the freshman year and delay Ger 101-102 until the junior year.

⁺To be selected from Engl 203, 204, 205, 206, 207, 208.

[#]At least 6 credits must be in humanities and/or social sciences.

#Selected from advanced science, engineering and mathematics courses to provide a coherent curriculum in preparation for the student's career objective. The program is carefully planned with the class advisor before the student begins the junior year. A minimum of 10 credits required.

Minutes of The Graduate Council Meeting, April 11, 1975

The Graduate Council met at 3 p.m. Friday, April 11, 1975, in the conference room of E-103 Martin Hall. The meeting was called to order by Dean Schwartz with the following present: Dr. Brown, Dr. Dysart, Dr. Macaulay, Dr. Howard (for Dr. Gahan), Dr. Mandel, Dr. Gauthreaux, Mr. Lauten, Mr. Lyle, Dr. Rodgers, Dr. Henricks, Professor Falk, Dr. Tanner and Dr. Maxwell.

The minutes of the March 14, 1975, meeting were approved with two changes.

The following new courses and changes were approved:

COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

Fin 602

Capital Budgeting

COLLEGE OF SCIENCES

Bioch 815

Lipids and Biomembranes (change in hours, title, and course description)

Bioch 817

Chemistry and Metabolism of Hormones
(Change in hours and prerequisites)

Bioch 820

Nucleic Acids and Protein Biosynthesis
(Change in hours, course description, and prerequisites)

Bioch 821

Proteins
(Change in hours and course description)

Bioch 824

Cellular Regulation at the Molecular
Level

Zool 835

Interpretative Electron Microscopy

Dr. Maxwell, chairman of the subcommittee on selected topics and seminars, discussed the reports which were distributed to council at the previous meeting. After a discussion period, a motion was made and seconded that the report be accepted as information, and that should appropriate policy statements be necessary that the Graduate School administration formulate same for submission to the Graduate Council.

Dr. Mandel presented a request for a non-thesis optional program for the Master of Arts degree in English. A motion was made, seconded and passed to approve this request.

The current incomplete grade policy was discussed by council. It was decided that changes be drafted and presented at the next meeting.

A motion was made and seconded to accept as information the report on graduate admission requirements.

A motion was made and seconded to accept as information the report of the duplication committee.

It was the opinion of council that an additional meeting was needed in April to finish old business on the present agenda.

A motion was made, seconded and passed to adjourn.

Minutes of The Scholarships and Awards Committee Meeting, March 24, 1975

The Scholarships and Awards Committee met at 3:30 p.m. in room E-103 Martin Hall, Chairman Corinne Sawyer presiding. Members absent: P. C. Caley, G. E. Coakley, J. L. Stonemetz, K. N. Vickery, D. R. Whiteside.

The meeting opened with the acceptance of the March 4, 1975, minutes as circulated.

The main order of business was the selection of the recipients of Clemson University administered scholarships. The University Scholarships and Awards Committee concurred with the recommendations of the

various collegiate Scholarships and Awards Committees.

A handout prepared by the Financial Aid Office was distributed providing data on the scholarship applicants broken down by major courses (for the 1975-76 academic year).

There being no further business, the meeting adjourned at 4:20 p.m.

Minutes of The University Library Committee Meeting, April 14, 1975

PRESENT: Hewitt D. Adams, (chairman), Furman R. Gray, Opal S. Hipps, Ursula A. Holahan, Gordon E. Howard, Edward F. Olive, Kenneth J. Russo, Tah Teh Yang, Doris R. Helms, J. W. Gordon Gourlay, (secretary).

1. Minutes of the meeting of March 10 were approved.
2. Discussion of security in basement of library.

Mr. Gourlay reported that members of the Communications Center had investigated the feasibility of installing closed-circuit television and had demonstrated a camera and a monitor. Also, they had received estimates of the cost of the equipment. Mr. Gourlay had requested Mr.

Stanley of the Physical Plant to provide an estimate of the cost of installing the equipment.

3. Student Senate Resolution No. R-74-75-76 "To Aid Grades"

The committee discussed this resolution which concerns extending library hours Sunday-Thursday until 12:00 midnight.

The Committee unanimously agreed that Mr. Gourlay write to Mr. Ingram, president of the Student Senate, and inform him that April 14 was the last scheduled meeting of the Committee but that the members would like to extend an invitation to him and some of the senators to meet with the committee at a fall semester meeting and discuss the resolution.

The committee also suggested that a copy of the record of the number of students leaving the library before closing time each night, and during examination period when the library schedule was extended until 1:00 a.m. be included with the letter.

4. Discussion of miscellaneous library matters.

5. Chairman Adams announced that this would be the last scheduled meeting of the University Library Committee until the fall semester. He thanked the members for their cooperation during the year.

Calendar of Campus Events

- 15-30 Architecture Exhibition: "Dan Brown -- MFA Thesis Exhibit," an exhibit of paintings and sculpture from a Clemson MFA candidate and winner of the Greenville Artist Guild 1974 Annual Spring Exhibit. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 19-23 College Week for Senior Citizens, first session: A program offering a variety of educational, recreational and field trip activities -- all designed especially for senior citizens. Sponsored by the Department of Recreation and Park Administration, the Cooperative Extension Service and the South Carolina Commission on Aging. Registration closed, expected enrollment, 270.
- 20 -- Classes begin, first session summer school.
- 26-30 College Week for Senior Citizens, second session. Registration closed, expected enrollment, 270.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 19

June 1, 1975



Trustee Robert R. Coker presents commendation to President Edwards.

CLEMSON BOARD OF TRUSTEES COMMENDS PRESIDENT EDWARDS

At a May 9th luncheon following the graduation of Clemson's largest class, the Board of Trustees unanimously expressed its commendation and appreciation of President Robert C. Edwards.

A resolution presented by the Board to President Edwards stated:

"WHEREAS, Clemson University under the administration of President Robert Cook Edwards has made a greater contribution to the progress of this state, the nation, and the world than at any previous period in its history; and

WHEREAS, these achievements in the quality and diversity of the student body, in the improvement of the faculty and the curricula, in the internal organization

of the University and in the growth of physical facilities, and in expanded services to the people of the State of South Carolina have been accomplished during a time of unparalleled social, economic, and governmental changes and a considerable amount of unrest in the academic world itself; and

WHEREAS, this progress in the life of this institution is directly attributable to the exceptional leadership of President Edwards as revealed in his skillful art of directing a complex educational institution, the total use of his energy and time, and his unquestioned dedication to the best interests of Clemson University; and

WHEREAS, the Board of Trustees of Clemson University wishes to take this opportunity to express officially and individually its feelings.

NOW THEREFORE, Be it unanimously resolved that the Board of Trustees of Clemson University expresses its sincere commendation and appreciation of Dr. Robert Cook Edwards, President of Clemson University."

re un ion '75

Summer of '75 steps off to a lively -- and somewhat busy -- pace this month when members and families of 22 classes return to campus for Annual Reunion Weekend, June 13-15, sponsored by the Clemson Alumni Association.

Highlight of the weekend affair is the Alumni Family banquet in Harcombe Dining Hall Saturday, June 14, at 7 p.m. Five graduates will receive the Alumni Association's highest honor, Distinguished Alumni Awards. They are Robert E. Marvin

(class of '42), Walterboro landscape architect; Romaine Smith ('33) of Birmingham, Ala., veteran agricultural magazine writer; Thomas E. Thornhill ('48) Charleston business executive; and J. Givens Young ('42), Florence agri-business leader; Robert H. Yeargin ('49), Greenville construction executive.

Tickets for the banquet are \$6 each, and should be purchased as early in advance as possible. They may be purchased at the University Alumni Center or at reunion registration headquarters in the lobby of Manning Hall during that weekend.

Two important groups -- directors of the Clemson University Foundation and Alumni Association National Councilmen -- will convene Friday (June 13) for a series of meetings relating to financial support programs of the University.

Activities on Saturday (June 14) include a reception for wives of alumni and guests at the University Alumni Center, 10 a.m.; general assembly at Daniel Hall, 2 p.m.; and the Alumni Fashion Show in the Clemson Room of The Clemson House, 2:30 p.m.



Russell S. Schouest (center), newly appointed director of the Computer Center, is congratulated by Arnold E. Schwartz (left), dean of Graduate Studies and University Research, and John C. Peck, director of the Division of Information Systems Development. After the official announcement was made by Dean Schwartz May 5, an informal reception was given for Mr. Schouest, the former systems manager, by the Computer Center staff.

ANNUAL COMPETITION FOR OVERSEAS STUDY OPENS

The Institute of International Education announced the official opening of the 1976-77 competition for grants for graduate study or research abroad in academic fields and for professional training in the creative and performing arts. It is expected that approximately 550 awards to 50 countries will be available for the 1976-77 academic year.

The purpose of these grants is to increase mutual understanding between the people of the United States and other countries through the exchange of persons, knowledge and skills. They are provided under the terms of the Mutual Educational and Cultural Exchange Act of 1961 (Fulbright-Hays Act) and by foreign governments, universities and private donors.

Applicants must be U.S. citizens at the time of application, who will generally hold a bachelor's degree or its equivalent before the beginning date of the grant and, in most cases, will be proficient in the language of the host country. Except for certain specific awards, candidates may not hold the Ph.D. at the time of application. Candidates for 1976-77 are ineligible for a grant to a country if they have been enrolled in a university or doing research in that country during the academic year 1975-76.

Creative and performing artists are not required to have a bachelor's degree, but they must have four years of professional study or equivalent experience. Social work applicants must have at least two years of professional experience after the Master of Social Work degree; candidates in medicine must have an M.D. at the time of application.

Selection is based on the academic and/or professional record of the applicant, the validity and feasibility of his proposed study plan, his language preparation and personal qualifications. Preference is given to candidates between 20 and 35 years of age who have not had prior opportunity for extended study or residence abroad.

Information and application forms may be obtained from A.E. Schwartz, Dean of Graduate Studies & University Research,

Fulbright Program Adviser at Clemson University. He is located in The Graduate School, E-106 Martin Hall and has office hours on Monday-Friday from 8 a.m. to 4:30 p.m. The deadline date for receipt of applications in his office is 10-1-75.

AGRONOMY AND SOILS

The following grants have been received to date by the Agronomy and Soils Department during the fall and spring semesters:

The Royster Company of Norfolk, Va., has made a grant of \$5,000 to conduct research on calcium, magnesium and sulfur needs for corn and soybeans. Research to be conducted by U.S. Jones (Prof).

The Dow Chemical Company of Midland, Mich., has made a grant of \$500 to conduct research on Nitrapyrin to be conducted by C. L. Parks (Prof) and H. D. Skipper (Assoc Prof).

The Chevron Chemical Company of Richmond, Calif., has made a grant of \$1,000 to conduct research on fall sod seeding of small grain in Coastal Bermudagrass. Research to be conducted by J. S. Rice (Asst Prof) and H. D. Yonce (Asst Prof).

The Stauffer Chemical Company of Tampa, Fla., has made a grant of \$500 to conduct on-farm demonstration work in tobacco culture. Work to be conducted by D. A. Benton (Assoc Prof). The Ansul Company of Marinette, Wis., has made a grant of \$200 for similar work to be conducted by Prof. Benton.

The Shell Oil Company of San Ramon, Calif., has made a grant of \$750 to conduct on-farm research for weed control in cotton. Research to be conducted by H. D. Yonce and L. H. Harvey (Prof).

The E. I. DuPont De Nemours Company of Wilmington, Del., has made a grant of \$500 to conduct on-farm soybean research. Work to be conducted by J. H. Palmer (Asst Prof) and H. D. Yonce. Chemagro, Division of Baychem Corporation of Kansas City, Mo., has made a grant of \$100 for similar work.

The BASF Wyandotte Corporation, Parsippany, N. J., has made a grant of \$1,500 to conduct soybean research. Work to be conducted by J. H. Palmer and H. D. Yonce.

Uniroyal Chemical, Division of Uniroyal, Inc., Bethany, Conn., has made a grant of \$500 to conduct soybean research. Work is to be conducted by J. H. Palmer and H. D. Yonce.

The Chevron Chemical Company of Orlando, Fla., has made a grant of \$1,000 to conduct soybean research. Work to be conducted by J. H. Palmer, H. D. Yonce and C. N. Nolan (Prof).

The Diamond Shamrock Chemical Company of Cleveland, Ohio, has made a grant of \$1,000 to conduct herbicide evaluation research for corn, cotton and soybeans. Research to be conducted by B. J. Gossett (Prof).

BASF Wyandotte Corporation has made a grant of \$1,000 to conduct experimental herbicide research in cotton and soybeans. Work is to be conducted by B. J. Gossett.

Thompson-Hayward Chemical Company, Kansas City, Kansas, has made a grant of \$1,000 to evaluate experimental herbicides for weed control in cotton and soybeans. Work to be conducted by B. J. Gossett.

E. I. DuPont De Nemours Company has made a grant of \$500 to evaluate selected herbicides for weed control in cotton and soybeans. Work to be conducted by B. J. Gossett.

Rohm and Haas Company of Philadelphia, Pa., has awarded a grant of \$1,000 to evaluate selected herbicides for weed control in corn, cotton and soybeans. Research to be conducted by B. J. Gossett.

Dow Chemical Company has made a grant of \$600 to evaluate herbicides for selected crops. Research to be conducted by B. J. Gossett.

Velsicol Chemical Corporation, Chicago, Ill., has made a grant of \$500 to evaluate selected herbicides in tank mixtures for weed control in cotton. Research to be conducted by B. J. Gossett.

A grant of \$500 has been made by Gulf Oil Corporation of Pittsburgh, Pa., to support investigations in weed control conducted by B. J. Gossett.

AmChem Products Company, Ambler, Pa., has made a grant of \$300 to support investigations in weed control conducted by B. J. Gossett.

A grant of \$1,000 has been made by Mobil Chemical Company, Industrial Chemicals Division, Richmond, Va., to conduct investigations with selected herbicides for weed control in corn, cotton and soybeans. Work to be conducted by B. J. Gossett.

Lilly Research Laboratories - Elanco Products Company of Indianapolis, Ind., has made a grant of \$1,500 to evaluate selected herbicide tank mixes on cotton and selected herbicides in conventional and no-till soybeans. Research to be conducted by B. J. Gossett.

A grant of \$1,000 was received from U. S. Borax Research Corporation, Los Angeles, Calif.; to evaluate selected experimental herbicides for weed control in cotton and soybeans. Work to be conducted by B. J. Gossett.

Nor-Am Agricultural Products, Inc., Chicago, Ill., has awarded a grant of \$750 to support research of B. J. Gossett for evaluating selected experimental herbicides for controlling weeds in cotton and soybeans.

BIOCHEMISTRY

J. K. Zimmerman (Asst Prof) gave a poster session, "Kinetically Controlled Self Association of Macromolecules on Gel Chromatography: Monomer: Dimer Tetramer," to the 59th annual meeting of the Federation of American Societies for Experimental Biology in Atlantic City, N. J., April 13-18.

Jack Brunson (Grad Stu), J. M. Shively (Prof and Hd) and J. W. Greenwalt (Johns Hopkins Medical School, Baltimore, Md.) recently presented a paper, "Intracytoplasmic Membrane Formation in E. coli O111a₁:

Nutritional Parameters," in New York at the National Meeting of the American Society of Microbiology.

Jack Brunson and Prof. Shively presented a paper, "Extra Membrane Formation in E. coli O111a₁: Lipid Biosynthesis," at the South Carolina Branch of the American Society of Microbiology in Greenville on March 7.

CERAMIC ENGINEERING

G. C. Robinson (Prof and Hd) gave a talk, "Gaseous Emissions from Brick Kilns," at the annual meeting of Southeastern Brick Manufacturers Association on May 16.

The following papers were presented at the 77th Annual Ceramic Society Convention in Washington, D.C. on May 3-8:

"Use of SEM in Adherence Studies of Porcelain Enamel-Metal Interfaces " by H. M. Player (Grad Stu), C. C. Fain (Prof), and H. G. Lefort (Assoc Prof).

"Putting Drying Theory to Practice " by G. C. Robinson.

CHEMICAL ENGINEERING

S. S. Melsheimer (Assoc Prof) and M. A. Lake (Westvaco Corp) presented "Donnan Dialysis: A Continuous Ion Exchange Membrane Process for Removing and Concentrating Ions from Waste Streams " at the Second National Conference on Complete Water Reuse in Chicago, Ill., May 5.

CHEMISTRY

Don C. Beer (Asst Prof) presented an invited seminar, "Recent Advances in Metalloborane Chemistry," to the Inorganic Division of Chemistry at the University of South Carolina, April 22.

CIVIL ENGINEERING

Herbert W. Busching (Assoc Prof and Hd) was an invited participant in the Second

June 1, 1975

International Seminar on "New Trends on Lower-Cost Housing Production," which was held at Miami Beach, Fla., on May 12-16.

Subhash C. Anand (Assoc Prof) participated in the 27th Annual American Institute of Steel Construction National Engineering Conference in St. Louis, Mo., on May 1-2 at the invitation of Virginia-Carolinas Structural Steel Fabricators Association.

COLLEGE OF ENGINEERING

Lyle C. Wilcox (Dean) presented a workshop on "An Analysis of Academic Salaries" at the American Society for Engineering Education, Southeastern Section annual meeting on April 10 in Louisville, Ky. Dean Wilcox has been asked to serve as Vice-Chairman, Administrative Section, of the American Society for Engineering Education.

Dean Wilcox and William J. Barnett (Technical Staff, Bell Laboratories, Greensboro, N. C.) presented their paper, "Algorithms for Computer Recognition of EEG Sleep Stages," on April 30 at the Twelfth Annual Rocky Mountain Bioengineering and International ISA Biomedical Sciences Instrumentation Symposium at the University of Colorado Medical Center, Denver, Colo. This paper will be published in the forthcoming proceeding of the "Twelfth Annual Rocky Mountain Symposium."

CONTINUING ENGINEERING EDUCATION

The fourth annual series of workshops on Interactive Computing for High School Students will be offered this summer in six five-day sessions at Clemson University. This series of workshops sponsored by the Electrical and Computer Engineering Department and presented by Continuing Engineering Education will be offered June 9-13, June 16-20, June 23-27, July 14-18, July 21-25, and July 29-August 1. Any high school student who is interested in learning about and working with computers will find a unique opportunity in these workshops. The chairman for the series of workshops is R. W. Snelsire (Assoc Prof, ECE).

5

ELECTRICAL AND COMPUTER ENGINEERING

J. W. Lathrop (Prof) presented an invited paper, "University Microelectronic Programs," at the Electronic Components Conference on May 13 in Washington, D.C.

ENGLISH

Robert P. Recktenwald (Asst Prof) has published a sonnet, "Who Would Have Dreamt," in the Spring 1975 issue of Driftwood East Quarterly.

Charles A. DeLancey (Instr in Speech) has been appointed district coordinator for the Bicentennial Youth Debates, a project of the Speech Communication Association and supported by a grant from the National Endowment for the Humanities. The debate tournaments will be held during November and December.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

J. D. Hair (Asst Prof) was elected first vice-president of the South Carolina Wildlife Federation in Columbia on April 19. The SCWF is affiliated with the National Wildlife Federation, which has a membership of 3 1/2 million.

Prof. Hair published the paper, "The Usefulness of Measures of Diversity, Niche Width and Niche Overlap in the Analysis of Helminth Communities in Waterfowl," Acta. Parasitologica Polonia, Vol. 23, pp.59-75.

"A Phylogeny and Revision of the Caddisfly Genus Ceraclea (Trichoptera, Leptoceridae)," was published by John C. Morse (Visit Asst Prof) in the Contributions of the American Entomological Institute, Vol. 11, No.2, 97 pp.

Merle Shepard (Asst Prof) presented his research findings on sampling adult pecan weevils to the S-88 Regional Project Technical Committee Meeting held at the Holiday Inn in Clemson, April 15-16.

A paper, "Dispersal of Posius maculiventris Nymphs in Soybeans," by Van Waddill (former Grad Res Asst) and Prof. Shepard was

published in Environmental Entomology, Vol 4, 1975.

"Disease Incidence in Soybean Loopers Collected by Two Sampling Methods" by Gary Newman (Grad Res Asst) and G. R. Carner (Asst Prof) was published in Environmental Entomology, Vol. 4, 231, 2.

ENVIRONMENTAL SYSTEMS ENGINEERING

John H. Austin (Prof and Hd) has been selected as one of the two U.S. representatives on the International Standing Committee on Education and Training of Waterworks Personnel of the International Water Supply Association.

FORESTRY

R. E. Schoenike (Assoc Prof) presented a paper, "Tree Improvement and the Conservation of Gene Resources," at the 24th Annual Louisiana State University Forestry Symposium, held at Baton Rouge, La., on April 2.

The following articles appeared in the April issue of Forest Farmer, a publication of the Forest Farmers Association: "Educating Tomorrow's Foresters," by W. H. D. McGregor (Dean). "The Fifth Era of Hobcaw Barony," by D.D. Hook (Prof and Dir of Belle W. Baruch Forest Science Institute). "Forestry Work of the State Extension Service," by G. D. Kessler (Assoc Prof and Project Leader, Extension Forestry). "A Look at the Man - John R. Tiller," by M. H. Bruner (Assoc Prof Emeritus) and W. J. Barker (Assoc Prof Emeritus).

R. G. Hooper (Adj Prof, USDA Forest Service) co-authored the paper, "Woodpecker Nesting Habitat in Cut and Uncut Woodlands in Virginia," in Journal of Wildlife Management, 39: 1975.

G. A. James (Adj Prof, USDA Forest Service) co-authored the following papers: "Grass Establishment on Developed Recreation Sites," in Journal of Soil and Water Conservation, Nov. - Dec., 1974, and

"Instant-and Interval-count Sampling: Two New Techniques for Estimating Recreation Use," in Forest Science, March 1975.

GEOLOGY

V. S. Griffin Jr. (Assoc Prof) presented a lecture, "Southern Appalachian Piedmont Geology," before the Geological Society of Finland at the Geological and Mineralogical Institute of the University of Helsinki, April 17.

HISTORY

Joseph L. Arbena (Assoc Prof) has published "The Loss of Panama and Colombian Poetry of the Early Twentieth Century," South-eastern Conference on Latin American Studies Annals, VI (March 1975). Prof. Arbena also participated in a panel discussion on Latin American Studies Publications at the XXII annual Southeastern Conference on Latin American Studies in Atlanta, Ga., April 17-19.

Jerome V. Reel Jr. (Assoc Prof) read a paper, "The Commissioners De Walliis Et Fossatis," to the Tenth Conference on Medieval Studies, Western Michigan University on May 6.

LANGUAGES

The Department of Languages established the Theta Phi Chapter of Delta Phi Alpha on April 22, 1975. Founded at Wofford College in 1927, this German National Honor Society now has some 17,000 active members and alumni throughout the United States. Some eighteen charter members were initiated into the local chapter. Also affiliating were the following German faculty who are members of Delta Phi Alpha: Ed Arnold (Instr), Judith Melton (Asst Prof), Margit Sinka (Asst Prof) and Patricia Wannamaker (Assoc Prof and Sponsor).

MATHEMATICAL SCIENCES

John Kenelly (Prof & Hd) has been invited to serve again for the academic year 1975-76

as one of the Consultant Bureau for the Committee on Undergraduate Programs in Mathematics. The Mathematical Association of America sponsors visits by the consultants to individual colleges to advise on mathematical programs.

James L. Flatt (Assoc Prof), as a member of the Southern Association Evaluation Team, visited Jackson High School in North Augusta on April 21-24 to evaluate their program.

Austin J. Lemoine (Asst Prof) has had the following articles published recently: "Limit Theorems for Generalized Single Server Queues: The Exceptional System," SIAM J. Appl. Math. Vol. 28, No. 3, May 1975, p. 596.

"Some Limiting Results for a Queueing Model with Feedback," Sankhyā: The Indian Journal of Statistics, Vol. 36, Series A, Pt. 3, 1974, p. 293.

MUSIC

Edith Card (Instr) presented three programs of traditional Appalachian folk music at Millwood Elementary School in Sumter and Spring Valley High School in Columbia on May 12-13. These programs were sponsored by the S. C. Arts Commission.

PHYSICS AND ASTRONOMY

A.L. Laskar (Assoc Prof) gave an invited colloquium lecture on "Point Defects and Their Transport in Alkali Halides," at Georgia State University on May 12.

P. B. Burt (Prof) participated in the conference on Theoretical Physics, University of Georgia, Athens, May 1-2. His lecture was "Nonlinear Quantum Field Theories, Solitary Waves and Self Interactions." The conference proceedings will be published in the September proceedings of the Georgia Academy of Science.

"Gravity and Neutrinos-Paradoxs and Possibilities" by Talmadge M. Davis (Grad Asst) and John R. Ray (Assoc Prof) was selected for Honorable Mention this year

in Gravity Research Foundation Essay Contest.

PSYCHOLOGY

G. W. O'Neill (Asst Prof) co-authored five chapters in a recent book, Behavior Research in Higher Education, edited by James M. Johnston.

Leonard Berger (Asst Prof) presented a program on the "Effects of Recession on Employees and Organizations," for the Pickens County Chapter of the International Management Council, April 21.

Prof. Berger also delivered a speech, "State and Federal Laws Concerning Selections of Employees," in the Labor Relations seminar sponsored by the Office of Professional Development, Clemson University, March 16.

Prof. Berger conducted a workshop on the "Prevention and Discovery of Grievances," sponsored by the South Carolina Budget and Control Board in Columbia on April 24-25. The program was hosted by the S. C. Personnel Division for all agencies in South Carolina.

Prof. Berger has been selected as a Vocational Expert for the Social Security Administration, Bureau of Hearings and Appeals.

SOCIOLOGY

Helen Marie Fleishman (Asst Prof) presented a paper, "Chauvinism in Kohlberg's Moral Stages," at the Georgia Psychological Association in Atlanta, May 9.

ZOOLOGY

Byron R. Ingram (Asst Prof) and Catherine F. Sigmon (Visit Asst Prof) attended the Thermal Ecology Symposium held at Augusta, Ga., April 2-5 and presented the following papers:

C. F. Sigmon, G. L. Ryals (former Grad Stu) and B. R. Ingram - "Distribution and

abundance of benthos in a lake receiving heated effluent."

B. R. Ingram - "Synergistic effects of daylength and temperature on aquatic insects."

The following papers were presented by members of the Zoology Department at the 36th annual meeting of the Association of Southeastern Biologists in Blacksburg, Va., April 16-19:

A. S. Tombes (Prof) and C. F. Sigmon - "Oxygen Consumption in Fourth Instar Larvae of Chaoborus punetipennis (Diptera: Chaoboridae)."

R. W. Boyne (Grad Res Asst) and B. R. Ingram - "Efficiency of a modified Surber Sampler."

A. S. Tombes, T. A. Malone (Grad Teach and Res Asst) and P. A. Matthes (Grad Teach Asst) - "Preliminary Optical and Electron Microscopic Descriptions of selected Neuroendocrine Structures of the Fourth Instar Larvae of Chaoborus punctipennis (Diptera: Chaoboridae)."

B. R. Ingram - "Variable Numbers of Molts in Field Populations of Odonata (Zygoptera: Coenagrionidae)."

R. W. Boyne and B. R. Ingram - "Benthic Populations in a Shallow Stream in South Carolina."

MINUTES OF THE EDUCATIONAL COUNCIL MEETING MAY 7, 1975

Present: Robert C. Edwards, presiding; Victor Hurst, Walter Cox, Stanley G. Nicholas, Joseph B. McDevitt, Melford A. Wilson, Luther P. Anderson, H. Morris Cox, J. W. Gordon Gourlay, Claud B. Green, Geraldine Labecki, Harold F. Landrith, Melvin C. Long, Harlan E. McClure, W. H. Davis McGregor, A. E. Schwartz, H. J. Grove, W. D. Trevillian, K. N. Vickery, Henry E. Vogel, Lyle C. Wilcox, S. M. Willis, and E. N. Tyndall, (Secretary).

1. Minutes of the meeting of April 7, 1975 were approved as submitted.

2. Curriculum Changes. Statement and Recommendation: The Dean of the University recommended additions, deletions and changes in the curricula, effective when designated on the appropriate Request for Approval forms as follows:

I. COLLEGE OF AGRICULTURAL SCIENCES

(A) New Undergraduate Course

F&Sci 101 Epochs in Man's Struggle for Food 1 cr. (1 and 0)

II. COLLEGE OF INDUSTRIAL MANAGEMENT AND TEXTILE SCIENCE

(A) Minor in Accounting

The Dean of the University recommended that the following definition of the minor in Accounting be approved:

"A Minor in Accounting consists of fifteen (15) semester credits in accounting courses above the first course in Principles of Accounting (Acct 201) which must include Accounting 301 and Accounting 302."

(B) New Graduate Course

Fin 602 Capital Budgeting 3 cr. (3 and 0)

III. COLLEGE OF LIBERAL ARTS

(A) NEW UNDERGRADUATE COURSE CHANGE

Psych 315 The Psychology of Religion 3 cr. (3 and 0)

IV. COLLEGE OF SCIENCES

(A) Undergraduate Course Change

Zool 310 Evolution 3 cr. (3 and 0)
(Change in credit and prerequisite.)

B. Revised Curriculum in the B. S. Degree in Chemistry

Freshman Year

Ch 101	
General Chemistry	4(3,3)
Engl 101	
English Composition	3(3,0)
Math 106	
Calculus of One Var	4,(4,0)

Comp Sci	
205 Elem. Comp. Prog.	3(3,0)
Ger 101	
Elementary German*	<u>4(3,1)</u>
	18
Ch 112	
General Chemistry	4(3,3)
Engl 102	
English Composition	3(3,0)
Math 108	
Cal. and Lin. Algebra	4(4,0)
Phys 122	
Mech. and Wave Phen	3(3,0)
Ger 102	
Elementary German*	<u>4(3,1)</u>
	18

Sophomore Year

Ch 223	
Organic Chemistry	3(3,0)
Ch 225	
Organic Chemistry Lab	2(0,6)
Literature Requirement†	3(3,0)
Math 206	
Calculus of Sev. Var.	4(4,0)
Phys 221	
Thermal & Elec. Phen	3(3,0)
Phys 223	
Physics Lab I	<u>1(0,3)</u>
	16
Ch 224	
Organic Chemistry	3(3,0)
Ch 226	
Organic Chemistry Lab	2(0,6)
Literature Requirement†	3(3,0)
Math 208	
Engineering Math I	4(4,0)
Phys 222	
Optics and Mod. Phys	3(3,0)
Phys 224	
Physics Lab II	<u>1(0,3)</u>
	16

(B) Revised Curriculum in the B.S. Degree in ChemistryJunior Year

Ch 133	
Quantitative Analysis	3(3,0)
Ch 315	
Quantitative Anal. Lab.	2(0,6)
Ch 331	
Physical Chemistry	3(3,0)

Ch 339	
Physical Chemistry Lab	1(0,3)
Elective #	<u>7</u>
	16
Ch 332	
Physical Chemistry	3(3,0)
Ch 340	
Physical Chemistry Lab	1(0,3)
Ch 411	
Instrumental Analysis	4(2,6)
Elective #	<u>8</u>
	16

Senior Year

Ch 402	
Inorganic Chemistry	3(3,0)
Career Requirements	6
Electives #	<u>6</u>
	15
Career Requirements #	4
Electives #	<u>11</u>
	15

130 Total semester hours

*Students planning to take biology courses register for Zool 101-103 and Bot 101-103 in the Freshman year and delay Ger 101-102 until the Junior year.

†To be selected from Engl 203, 204, 205, 206, 207, 208.

‡At least 6 credits must be in humanities and/or social sciences.

#Selected from advanced science, engineering and mathematics courses to provide a coherent curriculum in preparation for the student's career objective. The program is carefully planned with the class advisor before the student begins the Junior year. A minimum of 10 credits required.

(C) New Graduate Courses

Bioch 824	Cellular Regulation at the Molecular Level	3 cr. (3 and 0)
Zool. 835	Interpretative Electron Microscopy	2 cr. (2 and 0)

(D) Graduate Course Changes

Bioch 815 Lipids and Biomembranes
3 cr. (3 and 0)

(Change in hours, title and course description.)

(D) Graduate Course Changes

Bioch 817 Chemistry and Metabolism of
Hormones 3 cr. (3 and 0)

(Change in prerequisites and increases in hours.)

Bioch 820 Nucleic Acids and Protein
Biosynthesis 3 cr. (3 and 0)

(Change in hours and course description and prerequisite change.)

Bioch 821 Proteins 3 cr. (3 and 0)
(Change in hours and course description.)

Action: Approved

3. Non-thesis Option Program for the
Master of Arts Degree in English

The Dean of the University recommended that a non-thesis option program for the Master of Arts degree in English be approved.

Action: Approved.

PRESIDENTS OF THE CLEMSON FACULTY SENATE
1956 - 1976

1956-1957	John D. Lane
1957-1958	Ben E. Goodale
1958-1959	Frank B. Schirmer
1959-1960	John E. Miller
1960-1961	Claud B. Green
1961-1962	George F. Meenaghan
1962-1963	Victor Hurst
1963-1964	J. Gray Dinwiddie
1964-1965	John E. Miller
1965-1966	James M. Stepp
1966-1967	Jim T. Long
1967-1968	James N. Thurston
1968-1969	Eugene Park
1969-1970	John F. Pearce
1970-1971	Bobby J. Prochaska
1971-1972	Corinne Sawyer
1972-1973	Ernest B. Rogers
1973-1974	John D. Fulton
1974-1975	C. Ronald Dillon
1975-1976	George C. Skelly

Minutes of The Extension Council Meeting,
April 24, 1975

The Committee met in Room E-103 Martin Hall Members Present: S. M. Willis, Presiding, T. E. Burke, G. E. Campbell (for D. H. Pate), W. C. Capel, R. D. Elliott, F. H. Heddin, F. O. McAlhaney, G. E. Sabin (for S. A. Marbut), J. B. Taylor (also for K. A. Holleman), G. R. von Tungeln. Members Absent: M.P. Batson, V. S. Hodges, E. Parks, S. L. Parks.

The meeting was called to order at 2:05 p.m. by S. M. Willis, Chairperson. J. B. Taylor was asked to serve as secretary in the absence of S. L. Parks.

New members of the Council were welcomed by S. M. Willis.

University Study of Duplication:

Dean Willis called on G. R. von Tungeln for a report of the Ad Hoc Committee of the Extension Council on the findings of the study. Defining an extension activity was one of the first steps the committee had to take. The following definition was used by the Committee: "An extension activity is any off-campus activity administered by the University (excluding research activities) or any campus activity that is not part of any regular degree granting program." The Committee wrote deans of all the colleges of the University for listings of all extension activities. These listings were studied carefully for any duplication of an activity of one college by that of another college, or a duplication of any activity within a college. The Committee's conclusion, as revealed by the study, is that there is no inefficient duplication of the extension activities of one college by any other college, nor any significant inefficient duplication of extension activities within any college.

Discussion of the report followed. Questions were answered by G. R. von Tungeln.

G. R. von Tungeln moved the acceptance of the report. W. C. Capel seconded the motion. The report was unanimously accepted. Dean Willis expressed his deep appreciation to

the Committee for its hard work and fine report, and stated that the report would be sent forward.

CONTINUING EDUCATION CENTER

The progress to date on the Continuing Education Center was reviewed by Dean Willis. At present, the President has requested that progress on this project be held in obedience until the time is more favorable to seek additional monies to supplement the amount appropriated by legislature in order to build and operate a facility that will meet the needs of the University. The site across from the library has been selected for the Center.

There being no further business the Council adjourned at 2:55 p.m.

Minutes of The University Audio Visual Committee, April 1, 1975

Present: R.P. Ashworth, W. H. Durham, Opal S. Hipps, J. C. Hubbard Jr., M. W. Jutras, D. D. Moyle, P. K. Owen Jr., R. D. Riley, C. B. Russell, E. L. Wall, Samuel Wang, and Betty P. Watkins.

Dr. Jutras opened the meeting and the minutes of March 4, 1975, were corrected and approved.

ANNOUNCEMENTS: The faculty and senate has arranged to retire personnel on University councils and committees April 15th rather than September as in the past. As of this meeting, the following members will retire: J. C. Hubbard Jr., M. W. Jutras, P. K. Owen Jr., R. D. Riley and Betty P. Watkins. Dr. Jutras and Professor Hubbard will be present at the May meeting to conduct elections and turn the meeting over to the new officers.

OLD BUSINESS: A-V Repair Service: Mr. Durham presented an interim report on repairs. Some schools and colleges are taking advantage of the service. So far, the service is working very well and he feels optimistic about inaugurating the service in the fall on a charge basis.

Mr. Durham, with reference to grant request, stated that he had talked with Mr. Joel Parsons of the Appalachian Regional Council. Mr. Parsons said that he did not feel, at the present time, that there was a possibility of obtaining any A-V equipment money for higher education. The only possibility along these lines that had existed in the recent past was to establish a regional center for the service of other universities and public schools in the area.

Mr. Owen: The service and repair subcommittee report emphasized the importance of a strong loan and equipment repair service for A-V equipment.

Professor Wall: The subcommittee on potential cooperation with the Library Committee on the cataloging interdepartmental software stated that Ms. Sullivan said she would consult with the A-V Committee in attempting to make the cataloging operational. Dr. Jack Bennett, from Clayton Junior College in Georgia, in charge of the Resource Learning Center, a combination of traditional library, plus slides, films, etc., would be willing to come to Clemson during the summer or next fall and give a presentation on their center. This would require funding.

Mr. Riley: The workshop for the effective use of A-V equipment presents the following report: It is the opinion of this subcommittee that a series of workshops be sponsored by the University Audio-Visual Committee on the educational uses of audio-visual equipment. It is also suggested that only one representative from each department on campus be allowed to participate in these seminar workshops. The subcommittee is of the opinion that the seminars need to be broken into three categories; these being: 1. Video Tape 2. Image Projection 3. Sound Devices. Each category will be presented separately from the others in one hour sessions. The sessions should be arranged so that they will be offered three times during the evening. This will allow a person that wishes to attend only one session to do so and will also allow a person to attend all three if one wishes. Realizing that not all sessions will run the same length, it is also suggested that a coffee room be provided so that participants may relax momentarily between sessions.

In concluding, the subcommittee wishes to urge the committee to act urgently on this matter and try to get the workshops on the University Calendar for this fall. Also the subcommittee wishes to state again that the workshops be limited to one person from each department. This person does not have to be a professor, but may be a graduate teaching assistant.

The report was accepted and after discussion, the present A-V Committee recommended strongly that this be implemented in the fall.

Mr. Neil A. Miller for information on presentation of Multimedia for Clemson.

Dr. Moyle gave information concerning the Clemson University "Innovative Instructor Open House" to be held May 5 through May 8. This program was organized by the College of Engineering Effective Teaching Committee and the University A-V Committee. All interested faculty and staff are invited to visit all and any of these learning centers and laboratories. Tours of the University Communication Center were also announced.

New Business: Professor Wang will contact

Approved: May 6, 1975

- 3-6 State Convention: "Forty-Eighth Annual Convention of the S. C. Association of Future Farmers of America." Sponsored by the Department of Agricultural Education. Daniel Hall Auditorium, open to the public, admission free. Expected attendance, 400.
- 8-8/8 Architecture Exhibition: "1975 Thesis Exhibit," student projects representing the culmination of six years of architectural studies in the College of Architecture. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 12-15 Annual Alumni Reunion of Clemson.
- 12 Alumni President's Reception. 8:30 p.m., University Alumni Center, by invitation only.
- 14 Reception for wives of alumni and guests. 10 a.m., University Alumni Center.
- 14 Alumni General Assembly. 2 p.m., Daniel Hall Auditorium, open to the public.
- 14 Alumni Fashion Show. 2:30 p.m., Clemson Room of The Clemson House, open to the public, admission free.
- 14 Alumni Family Banquet. 7 p.m., Harcombe Dining Hall, open to the public, tickets \$6.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 20

June 15, 1975

MEMORIAL AWARD ESTABLISHED TO HONOR A. M. BLOSS

The Arnold Mandigo Bloss Memorial Award fund has been established. An award will be given once a year based primarily on high academics and financial endeavor. Further information may be received from the Financial Aid Office located in 106 Sikes Hall.

RECREATION CENTER/TENNIS COURT POLICIES TO BE REVIEWED

Recently established policies concerning use of Fike Recreation Center and tennis courts were discussed by a committee of faculty and student leaders and administration staff at a meeting June 12.

Walter T. Cox, vice president for student affairs, said the 17-member committee reviewed and considered suggestions that have been made about modification of the policies.

Cox said the group's recommendations will be promptly submitted to University executive officers for consideration and appropriate action. He said that any revised policy will be announced.

CHEMISTRY

H. G. Spencer (Prof and Hd) is the recipient of a renewal contract of \$2,300 from Vicellon, Inc., to study structures of porous materials.

C. B. Bishop (Assoc Prof) was awarded a research grant of \$5,673 by Thermal Engineering Corporation for the study of

Electrical Properties of High Boiling Non-aqueous Electrolyte Solutions.

CIVIL ENGINEERING

Billy L. Edge (Assoc Prof) presented a paper, "Hydrodynamics of Hopper Dredge Disposal," at the ASCE annual convention in New Orleans, April 16.

Prof. Edge also presented a paper, "A Summary of Waste Water Disposal Techniques," in April in Wilmington, N. C., at the Southeastern Conference on Waste Water Disposal on Water Supply.

Prof. Edge has received a National Science Foundation grant for co-sponsorship of Modeling '75 Symposium and also co-sponsorship from Clemson University, American Society of Civil Engineers, Corps of Engineers, and Department of Public Works, Canada.

Subhash C. Anand (Assoc Prof) has been asked to serve as acting president of the Northwest Branch of the South Carolina section of the American Society of Civil Engineers because of resignation of the president who has moved out of the state.

Michael L. Morrell (Asst Prof) presented a paper, "Behavior of Tapered Roof Girders Braced Along the Top Flange," in Toronto, Canada at the annual meeting of the Column Research Council on May 5-7.

Prof. Morrell has received a grant from the Public Health Service (HEW) for \$29,988 for investigating "Stress Analysis of a Lung with Lobes." The contract will be for a period of two years.

J. Edwin Clark (Assoc Prof) was invited by the Exxon Education Foundation to participate in a Guided Design Workshop

which was held at West Virginia University on May 22-23.

Herbert W. Busching (Assoc Prof and Hd) attended the Executive Committee Meeting for the Educational Division of the American Road Builders' Association in Washington, D. C. on June 4. Dr. Busching is president of the Educational Division of ARBA.

COLLEGE OF ENGINEERING

B. E. Gilliland (Asst to the Dean) has been elected to the position of vice-chairman of the South Carolina Nuclear Advisory Council, an advisory body to the Governor and Legislature on nuclear matters pertinent to the State of South Carolina.

ELEMENTARY AND SECONDARY EDUCATION

Gordon W. Gray (Prof) is the co-author (with Dr. J. Jaap Tuinman, Indiana University, and Dr. William E. Blanton, Indiana University) of an article, "The Cloze Procedure: An Analysis of Response Distributions," which was published in The Journal of General Psychology, Vol. 92, 1975, pp. 177-185.

ENGLISH

John L. Idol (Assoc Prof) has published "William Cowper Brann: A Checklist" in Southwestern American Literature: A Bibliography, edited by Anderson, Gaston, and Lee.

E. P. Willey (Assoc Prof) has published in the current issue of the South Atlantic Bulletin a review of W. S. Ward, British Periodicals and Newspapers, 1789-1832: A Bibliography of Secondary Sources.

R. J. Calhoun (Alumni Prof) has published in the current issue of the South Atlantic Bulletin a review of Arthur K. Moore, Contestable Concepts of Literary Theory.

ENVIRONMENTAL SYSTEMS ENGINEERING

A grant of \$15,012 for the period September 1, 1975 to August 31, 1976, has been awarded to Environmental Systems Engineering by the Environmental Protection Agency for the final year of the project "Criteria for Establishment of Two Year Post High School Wastewater Technology Programs." Since 1970 a total of \$250,000 has been awarded to the project which has developed an instructional approach being applied both in the United States and other countries.

GEOLOGY

G. M. Haselton (Assoc Prof) presented a paper, "Glacial Geology of the Tarr Inlet Region, Glacier Bay National Monument, Alaska," at the annual meeting of the Southeastern Section of the Geological Society of America in Memphis, Tenn., April 9-12. He also served as co-chairman of the session on Geomorphology.

R. D. Hatcher Jr. (Assoc Prof) has been named a correspondent to the Canadian portion of the Appalachian-Caledonian Project, an 8-year international program sponsored by UNESCO and the International Union of Geological Societies, to study the evolution of the Appalachian and Caledonian Mountains.

Prof. Hatcher was an invited participant in the Geological Society of American Penrose Research Conference on Paleozoic Margins of Paleo-American and Eurafrian Plates, May 24-31, in St. John, New Brunswick. He also presented a paper, "Timing of Tectonic Events and their Relationships to Possible Cryptic Sutures on the Southern Appalachians," and served as chairman of the session on Ophiolites, Sutures and other Major Faults.

HISTORY

Joseph L. Arbena (Assoc Prof) has published a review of Surendra Bhana, The United States and the Development of the Puerto Rican Status Question, 1936-1968, in History: Reviews of New Books, Vol. 3 (May/June 1975).

MATHEMATICAL SCIENCES

K. T. Wallenius (Prof) has received funding from the Office of Naval Research to continue research on a project, "Surveillance: Sampling Methodology." This \$25,000 contract increment brings the total project level to \$133,000.

Prof. Wallenius also has received funding from the Naval Air Systems Command to support research on "Statistical Methods in Procurement Research." The \$37,500 contract covers a one year period and involves several members of the Department of Mathematical Sciences.

Prof. Wallenius has been appointed Director of the Visiting Lecturer Program (South Eastern Section) for the Society for Industrial and Applied Mathematics.

Paul T. Holmes (Assoc Prof) chaired a session of contributed papers on Probability, Applied Probability, and Stochastic Processes at the Eastern Regional Meeting of the Institute of Mathematical Statistics held at the University of Rochester, May 21-23.

MECHANICAL ENGINEERING

C. A. Brandon (Assoc Prof) was invited to participate in the Southern Textile Research Committee Meeting held in Hilton Head, May 15-16.

Prof. Brandon presented a paper, "Complete Recycle of Textile Wastewater by Hyperfiltration," to the Environmental Symposium of the American Association of Textile Chemists and Colorists in Charlotte, N. C., May 28-29.

MUSIC

Edith Card (Instr) was awarded the Blue Ribbon for Champion Dulcimer Player at the annual Fiddler's Festival, May 23-25. This is an invitational festival held at Fiddler's Grove, N. C.

PSYCHOLOGY

Leonard Berger (Asst Prof) was chairman of four programs: "Government Guidelines in Employee Selection," "Basic Wage and Salary Administration," "Effective Interviewing," and "Advanced Techniques in Personnel Selection," sponsored by the Office of Professional Development, Clemson University, May 27-30.

Prof. Berger spoke to the Anderson School District high school faculty at an In-Service Teachers Workshop on "The Functioning Student and Substance Abuse," May 30.

REDFERN HEALTH CENTER

Dr. Donald Freeman (Director, Mental Health) has been reappointed for a three-year term to the four-person commission on publications of the American College Health Association, which oversees that organization's Journal, newsletter and Health Information Series. He has also been charged with compiling and editing a "Document on Risk-Taking Behavior Among College Students" for which he would appreciate any local input. While attending the Association's annual meeting this April in New York, he was invited to address the mental health and counseling staffs of New York University on "Recognition and Management of Sleep Disorders on Campus."

Dr. Freeman, as outgoing president of the Carolinas Society for Adolescent Psychiatry, also sat on the Council of Delegates of the American Society for Adolescent Psychiatry during its annual meeting held this May in Los Angeles, Calif. He also participated in a panel discussion on "Psychotherapy of Adolescents with Learning Disabilities" and was appointed associate editor of Adolescent Psychiatry, the Society's official scientific annual. A guest editorial by Dr. Freeman, concerning disturbances in late adolescence possibly caused by biochemical imbalance and sleep disorders, appeared in the April issue of the Society's Newsletter.

UNIVERSITY UNION SHORT COURSES

The Clemson University Student Union is making plans to expand its short course program this fall. Last year it met with great success when we offered such non-credit classes as square dancing, macramé, yoga, magic, weaving, wine-tasting and houseplants. These courses varied in length from 2 hours to 20 hours and were offered at a minimal charge or for free.

We are now looking to the faculty and staff for suggestions for good short course subjects as well as for instructors. If you have any ideas or talent and knowledge you would like to share, please get in touch with us. We are especially anxious to find a couple to teach ball-room dancing and someone with expertise in astrology. Call the Student Union at 656-2460.

Calendar of Campus Events

- 15-30 -- Architecture exhibition: "1975 Thesis Exhibit," student projects representing the culmination of six years of architectural studies in the College of Architecture. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m. weekdays.
- 16-21 -- Orientation, new students.
- 25-26 -- Examinations.
- 30 -- Orientation, new students.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLERMONT UNIVERSITY LIBRARY
SOUTH CARMEL, INDIANA 46032 JUL 1 1975

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 21

July 1, 1975

AGRONOMY AND SOILS

Earlene A. Rupert (Assoc Prof) presented a paper, "Significant Advances in Plant Cell and Tissue Culture," at the 32nd Annual Southern Pasture and Forage Crop Conference, Longview, Texas, May 20-22.

BIOCHEMISTRY

J. M. Shively (Prof and Hd) co-authored a paper, "Interpretation of the Mass Spectrum of an Ornithine-Containing Lipid," with M. L. Gross, D. R. Hilker and H. W. Knoche, University of Nebraska, Lincoln at the Nebraska Academy of Sciences meeting, April 1975.

CERAMIC ENGINEERING

Mohammed R. H. Ramez of Cairo, Egypt visited the Ceramic Engineering Department on June 4 and 5 to discuss raw material problems being experienced in Egypt. The change in the flooding pattern of the Nile River is making it necessary to find new sources of brick raw materials. This was the only ceramic engineering school visited in this country.

CHEMICAL ENGINEERING

R. C. Harshman (Prof), W. J. Huffman (Dept of Chemical Engineering, Texas Tech University, Lubbock, Texas, and R. M. Ward (Dow Chemical, Freeport, Texas) have published a paper, "Effects of Forced and Natural Convection during Ultra-filtration of Protein-Saline Solutions and Whole Blood in Thin Channels," in the I&EC Process Design & Development, Vol. 14, Page 166, April 1975.

CIVIL ENGINEERING

Parviz F. Rad (Asst Prof) attended the "World Congress on Educating Engineers for World Development" sponsored by the American Society of Engineering Education on June 9-12 in Estes Park, Colorado. Representatives of over 30 countries presented papers regarding food, energy, industrialization and human settlement. Dr. Rad was invited to participate in the workshop dealing with human settlements and urban ecology.

The Department of Civil Engineering has received a grant of an additional \$1,250 from Student Competition on Relevant Engineering (SCORE) for Clemson University's entry in the competition, "Energy Resource Alternatives."

Subhash C. Anand (Assoc Prof) has received membership in the Task Committee on Education of the Committee on Electronic Computation of the Structural Division of the American Society of Civil Engineers. The purpose of this committee is to assess, promote and inform the profession on pertinent educational issues related to the use of computers in structural analysis and design.

Freddy L. Roberts (Assoc Prof) has obtained a pledge of \$1,500 from Duke Power Company for purchasing materials for the construction phase of a student directed project that will be entered in the SCORE competition to be held during August in New Mexico. The project involves design and fabrication of an air innovative independent energy system for a residential home. The system uses a methane gas digester-generator combination for electricity and solar collectors for generating heat. In addition to the Duke grant, Koppers Co.,

Inc., of Pittsburg, Pennsylvania has donated approximately \$2,000 worth of treated lumber materials for construction of the solar collectors.

CONTINUING ENGINEERING EDUCATION

A seminar on The Science of the Manufacture of Ceramics for Superior High School Students will be July 10-12 in Olin Hall, Clemson University. This seminar is sponsored by the Ceramic Engineering Department and presented by Continuing Engineering Education. The Brick Industry of the Southeast is underwriting this program, therefore, allowing a low registration fee. The seminar consists of a series of laboratory experiments performed by the participants which will trace the manufacturing sequence of four ceramics from the raw materials to the finished product. These products will be: ceramic bone, ceramic capacitors, glass and refractories. The chairman of the seminar is G. C. Robinson (Prof & Head) Ceramic Engineering Department, Clemson University.

DAIRY SCIENCE

R. E. Wright (Assoc Prof) has been elected president of the Alumni Association, College of Veterinary Medicine, University of Georgia.

B. F. Jenny (Asst Prof) and C. E. Polan (Prof, VPI and SU) published a paper, "Postprandial Blood Glucose and Insulin in Cows Fed High Grain," in the Journal of Dairy Science 58:512, April 1975.

ENGLISH

Ronald W. Moran (Prof and Hd) has just been named editor of the South Atlantic Bulletin.

Prof. Moran has published "The Image of 'America' in the California/ Whitman Poems of Louis Simpson," in Geschichte und Gesellschaft in der amerikikanischen Literatur, ed. Karl Schubert and Ursula Muller-Richter, Heidelberg, 1975.

M. O. Usrey (Assoc Prof) read a paper, "Portrait of a Child: The Poetry of Elizabeth Madox Roberts," at the Conference on the Literary Aspects of Children's Literature at Piedmont College, June 7.

Harriet R. Holman (Prof) was a panel discussant on Scholarly Publishing in Children's Literature at the conference at Piedmont College, June 7.

Prof. Holman published "Interlude: Scenes from John Fox's Courtship of Fritz Scheff, as Reported by Richard Harding Davis" in the spring issue of the Southern Literary Journal.

Robert W. Hill (Asst Prof) served as a judge of the fiction and poetry contests for The Phoenix, The College of Charleston February 1975.

Prof. Hill was moderator for Artists and Writers' Dialogue at Albemarle, North Carolina, May 24, under the auspices of the Stanley County Arts Association.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

Robert P. West (Grad Res Assist) and Merle Shepard (Asst Prof) published a paper, "Analysis of Sampling Techniques for the Pecan Weevil, Curculio caryae," in the Proceedings of the Southeastern Pecan Growers Assn. Vol. 68: 55-61.

A paper, "Disease Incidence in Lepidopterous Pests of Soybeans," by G. R. Carner, (Asst Prof), Merle Shepard and S. G. Turnipseed (Prof) was published in the Journal of the Georgia Entomological Society 10: 99-104.

Prof. Carner attended and participated in the Annual Meeting of the Southeastern Electron Microscopists Society in Atlanta on May 30.

Jay D. Hair (Asst Prof) received a special research travel grant of \$500 from the National Wildlife Federation. These funds are to be used to coordinate the development of a research proposal on the habitat distribution and winter ecology of canvas-back ducks.

T. E. Skelton (Assoc Prof) received a grant of \$500 from NOR-AM Agricultural Products to evaluate low-level mixtures of Fundal and Lannate for insect control on selected vegetable crops.

Prof. Skelton discussed various aspects of entomology with a fourth grade class at Northside Elementary School in Seneca on May 1.

Prof. Skelton met with the 6th grade class of Oconee County Gifted and Talented Children in Walhalla on May 20. Several areas of entomology were discussed with this class.

A. G. Eversole (Asst Prof) attended and participated in the third bi-annual meetings of the Southeastern Estuarine Research Society (SEERS) at Georgetown, May 1-3, 1975.

G. I. Garriss (former Grad Res Asst), Ray Noblet (Asst Prof) and T. R. Adkins Jr. (Prof) published a paper, "Observations on Black Flies (Diptera: Simuliidae) in Sumter County, South Carolina, an Area Epizootic for Leucocytozoon smithi of Turkeys," Tech. Bull. 1053, May 1975.

The slide-tape program "Our War with the Insects" was presented at Tri County TEC on May 15 and to 6 classes on May 20 at Greer High School by R. C. Fox (Prof).

A paper, "Lectotypes of the Species of Notalina described by G. Ulmer (Trichoptera, Leptoceridae)," was published by H. H. Ross, Univ. of Ga., and J. C. Morse (Vis Asst Prof) in Entomologischen Mitteilungen Zool. Mus., Hamburg, 4: 575-578.

FOOD SCIENCE

J. J. Jen (Assoc Prof), C. S. Graham (Grad Res Asst) and B. J. Skelton (Assoc Prof, Hort) have published a paper, "Changes of amino acid composition of peach proteins during maturation," in HortScience 10: 129-130 (1975).

R. L. Thomas (Grad Res Asst) and Prof. Jen have published a paper, "Red light intensity and carotenoid biosynthesis in ripening tomatoes," in the Journal of Food Science 40: 566-568 (1975).

FORESTRY

R. E. Schoenike (Assoc Prof) and J. G. Williams Jr. (Instr) presented a paper, "Ten Year Results of a Pollinated Progeny Test of Longleaf Pine in South Carolina," at the 13th Southern Forest Tree Improvement Conference held at Raleigh, North Carolina, on June 10.

The U. S. Forest Service, Southeastern Forest Experiment Station has made a cooperative aid grant of \$10,000 to study the "Habitat Requirements of the Red-Cockaded Woodpecker." Gene W. Wood (Asst Prof) of the Belle W. Baruch Forest Science Institute is the principal investigator on this study of the red-cockaded woodpecker, an endangered species.

A grant of \$17,640 has been received from the U. S. Forest Service, Southeastern Forest Experiment Station to study the "Effects of Prescribed Fire on Water Quality of Ephemeral Streams and its Potential as a Site Preparation Treatment for Natural Regeneration in the Piedmont." Research is to be conducted by D. H. Van Lear (Assoc Prof), A. T. Shearin (Instr), J. T. Gillingham (Assoc Chemist, Agricultural Chemical Services Department) and J. E. Douglas (U.S.F.S.).

\$52,100 has been granted by the Water Resources Research Institute to study the "Renovation of Sewage Effluent by Forested Soil and Subsequent Effects on Nutrient Removal by Tree Growth." Research is to be conducted by C. L. Lane (Assoc Prof), A. T. Shearin, J. T. Gillingham, B. R. Smith (Asst Prof Dept of Agronomy and Soils) and C. L. Barth, (Assoc Prof, Department of Agricultural Engineering).

INTERDISCIPLINARY STUDIES

A. M. Weinstein (Asst Prof) received a two-year grant from the National Institute of Dental Research for "Finite Element Analysis of Prosthetic Tooth Implants" in the amount of \$21,478 direct cost for one year.

MATHEMATICAL SCIENCES

Paul T. Holmes (Assoc Prof) and Gary L. Guthrie (former Grad Stu) had the following article published recently: "On Record and Inter-Record Times for a sequence of Random Variables defined on a Markov Chain," *Advances in Applied Probability*, Vol. 7(1975), p. 195.

Andrew Sobczyk (Samuel Maner Martin Prof) presented a lecture, "Combinatorial Designs with Symmetries," at the NSF Regional Conference on Convex Polytopes and Mathematical Programming held at the University of Alabama, June 9-13, 1975.

John Kenelly (Prof and Hd) served June 4-12 at Princeton, New Jersey, as the examination leader for the Educational Testing Service, Advanced Placement Examination on Calculus. He has been named Chief Reader for the College Board Advanced Placement Examination in Mathematics.

PHYSICS AND ASTRONOMY

"Self-Interacting Field Theory of Neutral Pseudoscalar Mesons" by P. B. Burt (Prof) was a recent publication in *Lettere Al Nuovo Cimento*, Vol. 13, p. 26, May 3, 1975.

POLITICAL SCIENCE

Harold E. Albert (Assoc Prof) published a review of Aaron Wildavsky's *THE POLITICS*

OF THE BUDGETARY PROCESS (2nd ed.) in *CHOICE*, 12 (May 1975) No. 3.

Prof. Albert has been elected vice president of the South Carolina Political Science Association.

Charles W. Dunn (Assoc Prof and Hd) chaired a panel for the Small Towns Association at the South Carolina Municipal Association's Annual Convention in Charleston on May 27.

Prof. Dunn delivered the commencement address at the Greenville Memorial Auditorium for Mauldin High School on May 26.

Martin Slann (Asst Prof) published a review of Political Development and Change: A Policy Approach, Garry D. Brewer and Ronald D. Brunner, eds, in Perspective, Vol. 4, No. 4 (May 1975).

RECREATION AND PARK ADMINISTRATION

J. L. Stevenson (Prof) is serving as a charter member of the National Board of Leadership Certification of the American Camping Association, which met in Boston, Massachusetts, May 16-18.

Prof. Stevenson represented the University at a U. S. State Department sponsored workshop for faculty supervising Fulbright-Hayes Graduate Fellowships for 1976-77 in Washington, D. C., on May 7.

Calendar of Campus Events

- 1-15 -- Architecture Exhibition: "1975 Thesis Exhibit," student projects representing the culmination of six years of architectural studies in the College of Architecture. Rudolph Lee Gallery, College of Architecture, Gallery open 9:00 a.m. - 4:30 p.m.
- 2 -- Classes begin, second session summer school.
- 10-12 -- Seminar: "The Manufacture of Ceramics for Superior High School Students." Sponsored by Ceramic Engineering Department and Continuing Engineering Education. Olin Hall, enrollment limited to 40.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 22

July 15, 1975

CLEMSON UNIVERSITY TRUSTEES APPROVE 1975-76 BUDGET

Clemson University trustees have approved a \$34,729,270 budget for the institution's educational and general programs in fiscal year 1975-76. Of that amount, \$26,050,304 was funded by the state.

Also approved at the June 27 meeting was a \$22,294,442 budget (\$12,312,201 from state funds) for various public service programs, and \$9,557,024 for auxiliary enterprises which by law must be self-supporting.

Expenditures for public service programs include agricultural research, \$8,247,796; agricultural extension service, \$10,253,231; regulatory and public service, \$863,922; livestock-poultry health department, \$1,855,521; and forest and recreation research, \$1,073,972.

The total operating budget amounts to \$66,580,736 for 1975-76, compared to \$63,582,565 in 1974-75.

The new budget also contains \$8.7 million for permanent improvements and \$2.7 million for debt service requirement, bringing the grand total of expenditures for 1975-76 to \$78,109,304.

Clemson's state appropriation for its educational and general programs is about \$3.6 million less than the appropriation recommended originally by the State Budget and Control Board.

The cuts resulted primarily from revised estimates by the General Assembly of anticipated state revenues.

Melford Wilson, Vice President for Business and Finance, said budget items affected and

estimated amounts of reductions, include:

- \$290,000 for faculty support.
- \$180,000 for staff support.
- \$100,000 for graduate assistants.
- \$1,450,000 for educational equipment, especially the kind of equipment required by institutions involved deeply in technical and scientific areas.
- \$200,000 for other equipment.
- \$700,000 for preventive and routine maintenance work.
- \$680,000 for services, supplies and fixed charges necessary to meet costs of increased utilities, the impact of increased enrollment, additional buildings and general inflation.

"Workloads at Clemson are already heavy. Inability to add faculty and related staff to meet current needs, combined with the additional teaching loads in 1975-76, present a serious problem," Wilson said.

"It has been necessary to cancel some courses...defer teaching of some courses until later semesters, reduce our programs of continuing education, and cut back on plans for more adequately meeting public service needs in such fields as engineering, architecture and textiles," he said.

Clemson President Robert C. Edwards said the university "accepts without question" its responsibility for belt-tightening in times of economic distress.

He said he believes the General Assembly will continue to give strong support to

Clemson's programs and that he supports a master plan for the development and financing of higher education in the state.

But he added that on a long-range basis, the net impact of the formula budgeting method used by the Commission on Higher Education "will put Clemson back in the state college business instead of being a University."

The formula budget does this, he said, by failing to take into account the unique nature of Clemson as a scientific and technically oriented land-grant University and by failing to relate realistically the costs involved to the mission the university is charged with fulfilling.

In other business the Board:

-- Confirmed and ratified a tripartite agreement among The Belle W. Baruch Foundation, Clemson and the University of South Carolina for joint teaching and research at Hobcaw Barony at Georgetown in forestry, marine biology and the care and propagation of wildlife, flora and fauna in the state.

-- Approved the awarding of three construction contracts: \$2,236,126 to M. B. Kahn Construction Co. of Columbia for additions and renovations to McAdams Hall (agricultural engineering); \$1,163,100 to Triangle Construction Co., Greenville, for construction of the Dairy Science Research Center; \$35,830 to Burriss Construction Co., Columbia, for construction of rest rooms at Camp Long.

-- Confirmed a \$40 per semester increase in dormitory rental rates effective the fall semester (the first rate increase since 1973), and approved \$10 per semester increase in the University fee for full-time undergraduate students.

-- Approved changing of the name of the College of Physical, Mathematical and Biological Sciences to the College of Sciences.

-- Adopted a policy on rare possessions which establishes criteria for uniformly evaluating items offered to the University as gifts, or otherwise, to determine whether they should be accepted as rare possessions. (See policy in this issue).

-- Adopted a policy for complying with the Family Educational Rights and Privacy Act of 1974 which establishes requirements designed to protect the privacy of students. (See policy in this issue).

-- Approved the recommendation of the Committee on names for Campus Buildings and Roads that Mell Drive be renamed Parkway Drive.

POLICY SET FOR COMPLYING WITH FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

I. Purpose

The purpose of this policy is to set forth regulations informing all students of Clemson University of the rights accorded them by the Family Educational Rights and Privacy Act of 1974, and of University procedures for the exercise of those rights.

Nothing in this policy shall be construed as depriving students of rights of access to information to which they have heretofore been entitled by reason of State law or University practice. However, under the aforesaid Act, and under this policy, parents no longer have any of the rights set out herein except as provided in Section V. H.

II. Custodians of Student Records

POSITION	LOCATION	TYPES OF RECORDS
Director, PERSONNEL	Sikes Hall	Personnel records of employed students

POSITION	LOCATION	TYPES OF RECORDS
Director, ACCOUNTING	Sikes Hall	Financial obligatory records Payrolls of student employees Student depository
Manager, LAUNDRY	Dillard Bldg.	Student linen contracts
Chief, SECURITY	Physical Plant	Campus security records
Associate Director, HOUSING	Mell Hall	Housing for married students
Director, AUXILIARY ENTERPRISES	Sikes Hall	Motor vehicle accident reports
Director, FINANCIAL AID	Sikes Hall	Financial Aid Records
Director, STUDENT HEALTH CENTER	Redfern	Medical records
Director, ATHLETICS	Jervy Center	Student athlete records
Director, PLACEMENT OFFICE	Johnstone Hall	Job placement records
Registrar & Dean, ADMISSIONS	Sikes Hall	Undergraduate academic and admissions records
Director, LIBRARY	Library	Delinquent accounts
Dean, GRADUATE STUDIES & UNIVERSITY RESEARCH	Martin Hall	Graduate academic and admissions records
Advisor, FOREIGN STUDENTS	Holtzendorff Hall	Foreign student personnel records
Dean, COLLEGE OF AGRICULTURAL SCIENCES	Long(Barre)Hall	Student records of the college
Dean, COLLEGE OF ARCHITECTURE	Lee Hall	Student records of the college
Dean, COLLEGE OF EDUCATION	Tillman Hall	Student records of the college
Dean, COLLEGE OF ENGINEERING	Riggs Hall	Student records of the college
Dean, COLLEGE OF FOREST & RECREATION RESOURCES	Godfrey Hall	Student records of the college
Dean, COLLEGE OF INDUSTRIAL MANAGEMENT & TEXTILE SCIENCE	Sirrine Hall	Student records of the college
Dean, COLLEGE OF LIBERAL ARTS	Strode Tower	Student records of the college
Dean, COLLEGE OF NURSING	Strode Tower	Student records of the college
Dean, COLLEGE OF SCIENCES	Kinard Laboratory of Physics	Student records of the college
Heads, ACADEMIC DEPARTMENTS	Located through-	Student records of the forty-nine out the campus academic departments

III. Student Right of Access

All students of Clemson University have the right of access to their education records for the purpose of review, except for those records described in Section IV.

A. The student's request must be in writing, dated, signed and will be filed in the record. In each instance positive identification of the student will be required before the record is made available to the student. An access request should be granted within a reasonable period of time but must be complied with within 45 days of receiving it. However, each such request will be handled on an individual basis, and each custodian may invoke any part, or all, of the 45-day compliance period when deemed appropriate to do so.

B. Students at their own expense have the right to obtain copies of records which relate to them. The cost for such reproduction shall not exceed the actual cost to Clemson University, and shall be established by each custodian.

C. The custodian will respond to all requests for explanations and interpretations of records or information, except with respect to those records described in Section IV.

D. A student, or a person applying for admission, may waive the right of access to confidential letters of recommendation in the areas of admissions, job placement, and receipt of honors and awards. Such waiver shall not be required as a condition for admission to, receipt of financial aid from, or receipt of any other services or benefits from the University. When a student (or applicant) seeks to waive the right of access to confidential letters of recommendation, the custodian shall obtain the waiver in writing after notifying the student (or applicant): (1) of the names of all persons making written confidential communications, and (2) that such recommendations will be used solely for the purpose for which they were specifically intended. (If they are subsequently used otherwise, the student's (or applicant's) right of access is restored

notwithstanding the prior execution of, and presence in the record of, a written waiver.)

IV. Records Not Accessible to Students

A. Supervisory, instructional, and administrative personnel records and educational records pertaining thereto (e.g. grade books, notes of observation, and notes for recollection purposes) in the sole possession of the author and not revealed to any person other than a substitute.

B. Investigative records of a student in the custody of the University Security Department, provided they are maintained solely for law enforcement purposes, and are made available only to law enforcement officials of the same jurisdiction. (Does not preclude access to records pertaining to motor vehicle accidents or traffic violations.)

C. Employment records of a University student employee made and maintained in the normal course of business in the student's capacity as an employee and not available for use for any other purpose.

D. Records and information on a student maintained by a physician, psychiatrist, or psychologist employed by the University. However, these records and information can be made available to a physician or other appropriate professional of the student's choice.

E. Financial records of the parents of a student and any information contained therein.

F. When a student's record also contains information on another student, the right of access does not extend thereto but only to the information pertaining to the student seeking access. The student shall be permitted to view the relevant information if that is feasible without violating the right of privacy of the other student; otherwise the custodian shall inform the student of the relevant information.

V. Information Releasable without Student Consent

Under the following circumstances and to the following people, educational records or personally identifiable information contained therein may be released without the written consent of the student:

A. Officials, faculty, and staff employed by Clemson University, if they have a legitimate educational interest.

B. Officials of other educational institutions in which the student seeks or intends to enroll provided the student is notified of the transfer of the record, given a copy of the record if desired, and afforded an opportunity to challenge the content of the record.

C. Authorized representatives (including contractors) of the following: the Comptroller General of the United States, the Secretary of Health, Education and Welfare, the Commissioner of Education, the Director of the National Institute of Education, the Assistant Secretary of Health, Education, and Welfare for Education, or state educational authorities. Information released under this paragraph shall be limited to records certified by the requesting representative to be necessary in connection with the audit and evaluation of Federally supported education programs, or in connection with the enforcement of Federal legal requirements which relate to such programs. However, that limitation shall not restrict the ability of the Office for Civil Rights to obtain personally identifiable data in connection with the enforcement of civil rights requirements.

D. Individuals requiring such information in connection with a student's application for, or receipt of, financial aid.

E. State and local officials or authorities to whom state law in effect on or before 19 Nov. 1974 requires such information to be reported.

F. Organizations (such as Educational Testing Service and College Entrance Examination Board) conducting studies for the purposes of developing, validating, or administering predictive tests, administering student aid programs, and improving

instruction, but the releasing custodian must request such organizations not to permit the personally identifiable information to be shown to other parties, and to destroy the information when no longer needed for the purposes for which it was obtained.

G. Accrediting organizations.

H. Parents (or legal guardians) who certify that a student is carried as a dependent for Federal income tax purposes. This certification must be required by the record custodian concerned and filed in the record.

I. Appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of the student or other persons. (Some factors to consider are: the seriousness of the threat to health or safety; the need for such records to meet the emergency; whether the persons to whom such records are released are in a position to deal with the emergency; the extent to which time is of the essence in dealing with the emergency.)

J. Individuals requiring such information in compliance with judicial order or any lawfully issued subpoena, upon condition that the student is notified by the University of all such orders or subpoenas in advance of compliance.

VI. Student Right to Challenge the Content of Records

Students have the right to a hearing to challenge the contents of a record. The challenge is limited to information which relates directly to the student and which the student asserts is inaccurate, misleading, or otherwise inappropriate. (This right does not permit the student to contest a grade on the ground that a higher grade is deserved, but only to show that the grade has been inaccurately recorded.)

The following procedures will be followed:

A. Any student wishing to challenge the contents of a record must notify the custodian of the record of the wish to challenge. The notice must be in writing,

must be filed with the custodian of the challenged record, and must specifically identify the item challenged and the basis for the challenge. The basis must be on the following grounds only:

1. The item contains inaccuracies.
 2. The items is misleading.
 3. The item contains otherwise inappropriate data (interpreted to mean data in violation of the privacy or other legal right of students).
- B. All initial hearings will be informal and participants will be the custodian of the challenged record or information, the student making the challenge, and the author (if appropriate) of the material.
- C. If any of the participants (record custodian, student, or author) is not satisfied with the results of the informal hearing, a formal hearing will be conducted under the following procedures:
1. The hearing will be conducted and decided within a reasonable period of time (7 business days) following the request for the hearing.
 2. The hearing will be conducted, and the decision rendered, by an institutional official who does not have a direct interest in the outcome of the hearing. The appointment of the official will be made by the Vice President to whom the record custodian reports.
 3. The student will be afforded a full and fair opportunity to present evidence relevant to the challenge to include the opportunity to insert into the record a written explanation respecting the content of the challenged item. If the hearing official concludes that the challenged item does in fact, contain inaccurate, misleading, or otherwise inappropriate data, the hearing official will take appropriate action to correct the record.
 4. The decision of the hearing official must be rendered in writing to all interested parties within a reasonable period of time (7 business days) after the conclusion of the hearing.

VII. Student Consent to Release Records

Consent of the student will be required only when identity of the student can be established from the information to be released and only when the release is to persons other than those identified in Section V. Examples of such information are transcripts, rank in class, personal conduct, grade-point ratio, academic progress, etc. The student must consent in writing to the custodian of the record specifying the records and information to be released, the reasons for such release, and the names of the parties to whom the records are to be released. Upon request, a copy of the record released shall be provided the student at cost.

Note: The only information for which student consent for release is required is personally identifiable information contained in "education records." The term "education records" is defined as records, files, documents and other materials (including, but not limited to, handwriting, print, tapes, film, microfilm and microfiche) which (1) contain information directly related to a student and (2) are physically maintained by University custodians of records. Thus, an oral or written communication based on personal contact and observation and not on information maintained in recorded form by a University record custodian may be made without student consent even though confidential in nature. This assumes that a copy of the written recommendation is not filed in an education record of the student. The law protects the student's right in such instance by according the right of access to the confidential letter at the educational institution to which it is sent. Since the law is applicable only to educational institutions receiving Federal financial program assistance, a similar legal right of access would not be available to the student in the instance of a written confidential recommendation sent to a potential employer. Further, the student's right of access at an educational institution which is the recipient of a confidential letter of recommendation may be waived. There would be nothing improper in a request by a member of the University faculty or staff

who is asked by a student to submit such a recommendation that the student submit to the recipient educational institution a waiver of access to the letter.

VIII. Record of Access

All parties (except officials, faculty and staff, employed by Clemson University having a legitimate educational interest) requesting or obtaining access to a student's record will be required to indicate in writing specifically the legitimate interest that the party has in obtaining this information. This written record shall be kept permanently with the file of the student, and shall be available only to the student, the custodian, and the persons or organizations listed in Section V, A and C (as a means of auditing compliance with this policy).

IX. Notice to Third Parties

Clemson University will not release personal information on a student except on the condition that the party to which the information is being transferred will not permit any other party to have access to the information without written consent of the student.

A. An individual to whom personally identifiable information concerning a student is made available from a student record shall be given the following notice in writing:

"We are enclosing the attached information at the request of (student's name). Under the Family Educational Rights and Privacy Act of 1974, this information is provided to you on the condition you will not permit any other party to have access to this information without the written consent of the student concerned."

X. Release of "Student Directory Information"

Information on students such as student's name, address, telephone listing, date of birth, place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received,

and most recent previous educational institution attended is defined by the Family Educational Rights and Privacy Act of 1974 as "student directory information" (this does not refer necessarily to a publication known as a "directory"). The above-mentioned information will be released by various records custodians periodically, or upon request, unless the student requests in writing that the information be withheld.

A publication known as the Clemson University Directory is one type of periodical containing data classified as "student directory information." It will contain the student's name, local mailing address, home address, local phone number, residence hall and room number (if applicable), major course, academic class and marital status, unless the student requests the Registrar, in writing, to withhold the data in which case only the name of the student will appear in the next publication of the Directory.

XI. Destruction of Records

Clemson University constantly reviews "education records" it maintains, and periodically it is considered sound management practice to destroy certain records. In no case will the University destroy records if the action is prohibited by state or federal law. Neither will a record be destroyed after a student request for access to the record has been received without allowing the student an opportunity to review the information.

Basic scholastic records are kept permanently in the Registrar's Office. Beyond these, the custodians in various colleges, departments and offices may determine their own policies regarding retention of records within existing law.

XII. Letters of Recommendation

A. Students have the right to review confidential recommendations used in applications for employment, for admission to the University or containing information concerning honors and awards, providing they are contained in an education record maintained by the University, and provided, further, that the student has not waived

the right under Section III. D. The law does not require that such confidential recommendations be made part of or retained in an education record. Therefore, there is nothing improper in the destruction of such a recommendation once it has served its purpose, providing there has not been a prior request by a student for access to the recommendation.

B. However, under the Family Educational Rights and Privacy Act of 1974, the student does not have access to such confidential letters and statements of recommendation which were placed in the educational records prior to 1 January 1975, and which presently remain in those records, if the letters or statements are used for purposes for which they were specifically intended. Access may, of course, be granted in the discretion of the custodian.

XIII. Former Students

These procedures apply to all persons formerly enrolled at Clemson University as well as those currently enrolled, but do not apply to applicants who never attended.

CRITERIA FOR EVALUATING RARE POSSESSIONS ESTABLISHED

Purpose

This policy establishes criteria for uniformly evaluating items proffered to the University as gifts, or otherwise, in order to determine whether they should be accepted as rare possessions, and provides an administrative procedure for such evaluations and for ensuring the proper identification, placement, maintenance, and security of all rare possessions of the University.

Conditions for Acceptance as Rare Possessions

To qualify for acceptance by the University as a rare possession, an item, or collection, must meet the following criteria:

(1) It would advance the scholastic, educational, public service, or environmental support mission of the University.

(2) It cannot be replaced or repaired if destroyed or defaced, except at great expense and effort.

(3) Its age and monetary value, though relevant, need not be controlling factors.

The Committee on Rare Possessions is a standing committee, appointed by the President of the University, charged with the following functions:

(1) Evaluating, under the above criteria, items proffered to the University as gifts, or otherwise, in the category of rare possessions, and recommending to the Administration their acceptance or rejection.

(2) For the purpose of the preceding subparagraph, soliciting expert assistance when a particular competence is not held within the membership of the Committee.

(3) Establishing and maintaining a Rare Items Collection Inventory to include, at least, the specific location and estimated value of each item, and submit a yearly report thereof to the Vice President for Development.

(4) Advising locations and settings deemed feasible and appropriate for optimum display of items, or collections, of rare possessions.

(5) Ascertaining, within the scope of its competence and with such other advice as may be obtained, the estimated monetary costs of achieving recommended displays of items, or collections, of rare possessions, and advising as to possible sources of such costs.

(6) Consulting with committees for buildings being constructed or renovated and recommending locations and settings for the display of rare possessions deemed appropriate for such buildings.

(7) Recommending storage measures deemed appropriate for rare possessions not permanently, or only periodically, displayed.

(8) Ascertaining the need for and recommending measures for proper maintenance and preservation of rare possessions.

(9) Advising security measures deemed necessary in the instance of the display or storage of rare possessions.

KOLB SCHOLARSHIP ESTABLISHED IN AGRICULTURE

The South Carolina Rural Rehabilitation Corporation has announced an annual \$15,000 scholarship program for youths in agriculture at Clemson.

The Corporation, organized in the '30s to handle federal funds allocated for farm relief in the state, has continued to function over the years through return on rural loans.

The scholarships will be named for Frank Kolb of Columbia, president of the corporation and long prominent in South Carolina agriculture.

Four \$1,000 undergraduate scholarships and two graduate fellowships of \$5,500 will be given annually "to give recognition and assistance to outstanding students in Clemson's College of Agricultural Sciences."

Dr. L. P. Anderson, dean, called the aid program especially significant in the current and projected world food situation, "in view of Clemson's commitment to helping resolve agricultural problems and to educating people who will face the challenges we see ahead."

Kolb, 76, and native of the Sumter area, came to Clemson "on a scholarship, the only way I could have attended." He graduated in 1920 and now serves as class president.

He was county agent in Orangeburg from 1925 to '35 then joined the Resettlement Administration, forerunner of the Farmers Home Administration, to remain 19 years and retire in 1954 as state director.

From 1955 to 1969, he was head of the Baptist Foundation work in the state.

He has been connected with the rural Rehabilitation Corporation since work with the FHA in the '30s and expresses

"a lot of satisfaction from those years helping rural families with their problems."

E. P. Rogers of Mullins is vice president of the Corporation and R. B. Waters of Newberry, secretary-treasurer. Directors are H. M. Kinsey, Walterboro; W. B. McKinney, Columbia; S. W. O'Dell, Bishopville; and C. T. Smith, Kinards.

AGRONOMY AND SOILS

E. A. Rupert (Assoc Prof) was among 100 invited participants at the Gordon Research Conference on "Plant Cell and Tissue Culture," Andover, New Hampshire, June 9-13. Agricultural applications, new technical advances and future directions for research in this area of plant science were discussed by participants from four continents.

ARCHITECTURE

Robert Hunter (Prof), John Acorn (Assoc Prof), Jamie Davis (Inst., Summer Session 1, 1975), Tom Dimond (Coordinator of Educational Media) and Dan Brown (Grad Stu) received awards for graphics, sculpture, ceramics and painting respectively at the 39th Artists Guild Exhibit which was held in June at the Greenville County Museum of Art.

Mr. Dimond represented Lee Hall Gallery and was an official voting delegate to the South Carolina Federation of Museums Annual Spring Meeting which was held April 25-26 at Pawley's Island. He also participated in the Art Museum workshop and tours of Brookgreen Gardens, Hopsewee Plantation, Prince George Episcopal Church and the Rice Museum.

M. David Egan (Assoc Prof) participated in the 89th meeting of the Acoustical Society of America which was held April 8-10 at the University of Texas in Austin, Texas. Prof. Egan is secretary of the Technical Council on Architectural Acoustics.

Sam Wang (Assoc Prof) had a one-man exhibition of his photoserigraphs at the Museum of Art, University of Iowa, in June.

George C. Means Jr. (Prof. Health Care Facilities Studio) was a group leader at the H. Carl Rowland Memorial Library Health Planning Seminar sponsored by the Duke Endowment in Charlotte, North Carolina, May 30- June 1. His subject was "Facility Design."

BIOCHEMISTRY

G. L. Powell (Assoc Prof), J. M. Shively (Prof and Hd) and J. K. Zimmerman (Assist Prof) participated in Gordon Research Conferences during the week of June 15th. Profs. Powell and Shively were participants in the conference on Lipid Metabolism at Meriden, New Hampshire. Prof. Zimmerman participated in the conference on Proteins at New Hampton, New Hampshire.

Prof. Shively presented a seminar, "Intracellular organization in prokaryotic organisms: Inclusions," at the University of Maryland Medical School, Baltimore, June 26.

ECONOMICS

Hugh Macaulay (Alumni Prof) is a lecturer in a program sponsored by Furman University during July and August for teachers of economics in the Greenville County Schools.

Russell Shannon (Assoc Prof) participated in a Consumer Energy Workshop sponsored by the Federal Energy Administration in Atlanta, Georgia, on May 22-23.

Ralph D. Elliott (Asst Prof) has been accepted as a discussant at the Third Annual Atlantic Economic Conference to be held September 12-13 in Washington, D.C.

FORESTRY

A grant of \$2,500 has been renewed by Chevron, Inc., to investigate the "Use of Herbicide in Stimulating Oleoresin Production in Pine Trees." Research is to be conducted by L. E. Nix (Asst Prof).

D. D. Hook (Prof and Director of Belle W. Baruch Forest Science Institute) participated as an invited discussant in the

"Anerobis and Plant Adaptation to It" symposium held in Leningrad, USSR on July 3-10 in conjunction with the XII International Botanical Congress.

GEOLOGY

Robert D. Hatcher Jr. (Assoc Prof) has been appointed to a ten-member U. S. working group of the International Appalachians-Caledonite Project and has been appointed coordinator for research on the Western Appalachian Margin.

PHYSICS AND ASTRONOMY

John P. McKelvey (Prof and Hd) attended the recent June meeting of the American Physical Society in Knoxville, Tennessee. He acted as chairman of a session of contributed papers on semiconductors and other topics in solid-state physics.

PSYCHOLOGY

Leonard Berger (Asst Prof) conducted a one day seminar on Management By Objectives at Greenville Vocational Technical College on June 24.

TEXTILE DEPARTMENT

John J. Porter (Assoc Prof), along with F. Chris Alley (Prof) and John T. Grubbs (Grad Stu) of Chemical Engineering, presented a paper, "An Analysis of Flue Gas Emissions from Textile Tenter Frame Drying Ranges," at the Air Pollution Control Association's National Conference in Boston, Massachusetts, June 17.

Calendar of Campus Events

- 15-31 -- Architecture Exhibition: "1975 Thesis Exhibit," student projects representing the culmination of six years of architectural studies in the College of Architecture. Rudolph Lee Gallery, College of Architecture, Gallery open 9 a.m. - 4:30 p.m.
- 16 -- Short Course: "Leadership/Management Theory in Nursing Practice." Sponsored by the College of Nursing. Purple Room of The Clemson House, open to nurses responsible for the provision of care, \$15 registration fee in advance.
- 23 -- Short Course: "Teaching-Learning Process in Nursing." Sponsored by the College of Nursing. Purple Room of The Clemson House, open to nurses interested in staff development, \$15 registration fee in advance.

PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

CLEMSON UNIVERSITY

INFORMATION FOR THE FACULTY AND STAFF OF CLEMSON UNIVERSITY

Vol. 14 No. 23

August 1, 1975

AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

L. D. Malphrus (Assoc Prof) participated in a meeting of the grain marketing research technical committee (SM-42) in Gulf Shores, Alabama. The committee consists of representatives from eight southern and three midwestern states, TVA and USDA. Prof. Malphrus was reelected chairman of the committee.

AGRICULTURAL ENGINEERING

At the annual summer meeting of the American Society of Agricultural Engineers in Davis, California, June 22-26, the following papers were presented:

J. T. Ligon (Prof) -- "Tritium Tracing of Unsaturated Moisture Movement." This paper was co-authored by T. V. Wilson (Prof), J. F. Allen (Assoc Prof Chem) and U. P. Singh (former Grad Asst).

T. E. Bond (Adjunct Prof and Res. Leader, Rural Housing Res. Unit, ARS, USDA) -- "The Role of the ARS Rural Housing Research Unit in Housing Research."

J. O. Newman (Res. Agr. Engr., Rural Housing Res. Unit, ARS, USDA) -- "Slab on Grade Floors Made from Wood and Wood Products."

F. H. Hedden (Assoc Prof) and R. A. Spray (Asst Prof) -- "A Field Study of a House Destroyed by Fungus Attack Resulting from Uncontrolled Moisture."

C. E. Hood (Prof) -- "A Two-Dimensional Shaker for Harvesting Fresh Market Tomatoes." This paper was co-authored by Y. Alper (Vis Instr) and B. K. Webb (Prof).

Prof. Ligon -- "Field-Verified Water Balance Computations Based on Evapotranspiration Estimates." This paper was co-authored by Prof. Wilson.

D. T. Hill (Asst Ag Engr) -- "Nutrient Conservation in Animal Waste Management." This paper was co-authored by C. L. Barth (Assoc Prof).

A. G. Jordan (Asst Ag Engr) -- "Development of Commercial Equipment for the Mechanical Harvest of Oysters in South Carolina." This paper was co-authored by Prof. Webb and V. G. Burrell (Director, S. C. Marine Resources Research Institute).

Prof. Wilson -- "Runoff as Influenced by Antecedent Moisture, Precipitation and Land Use." This paper was co-authored by Prof. Ligon.

D. T. Hill -- "Energy Conservation in Swine Waste Management." This paper was co-authored by Prof. Barth.

Prof. Bond -- "The Influence of Shape and Orientation on Effectiveness of Livestock Shades." This paper was co-authored by L. W. Neubauer (Prof. Emeritus, Univ. of CA at Davis) and R. L. Givens (Ag Eng, ARS, USDA, Univ. of CA at Davis).

J. B. Davis (Asst Ag Engr) -- "Injected Trifluralin and Fluometuron Compared to Disk Incorporation and Spray Overlay." This paper was co-authored by T. H. Garner (Prof), A. G. Jordan (Asst Ag Engr), Prof. Webb and B. J. Gossett (Prof, Agronomy).

Prof. Webb was the presiding officer during the session on aquacultural engineering at the Annual Summer Meeting of the American Society of Agricultural Engineers in Davis, CA, June 23-26.

Prof. Barth was elected vice president of the Southeast Region of the American Society of Agricultural Engineers.

J. R. Lambert (Prof) has been awarded a National Science Foundation Grant for two years in the amount of \$117,600 for support of a project, "Simulation of Processes in the Rhizosphere."

AGRONOMY AND SOILS

The following grants have been received by the Agronomy and Soils Department during the period May 1, 1975, through June 30, 1975:

Minnesota Mining & Manufacturing Company has made a grant of \$1,250 for weed control research in cotton and soybeans conducted by B. J. Gossett (Prof).

The U. S. Borax Company has made a grant of \$500 in support of weed control research in peanuts, soybeans and cotton conducted by H. D. Yonce (Asst Prof).

The Mobil Chemical Company has made a grant of \$4,000 to support Cl^- leaching in two soil types with corn and bermuda-grass conducted by C. L. Parks (Prof).

The Ciba-Geigy Corporation has made a grant of \$5,000 to support research on environmental parameters affecting the soil degradative and biological activity of CGA-24705 conducted by H. D. Skipper (Assoc Prof).

The Ciba-Geigy Corporation has made a grant of \$1,000 in support of weed control research in corn, cotton and soybeans conducted by Prof. Gossett.

Rhodia, Inc., has made a grant of \$250 to support weed control research in soybeans conducted by Prof. Gossett.

The Dow Chemical Company has made a grant of \$600 to support weed control research in cotton conducted by Prof. Gossett.

BASF Wyandotte has made a grant of \$1,000 to support weed control research in cotton and soybeans conducted by Prof. Gossett.

BASF Wyandotte has made a grant of \$500 to support on-farm evaluation of the herbicide Basagran for control of ragweed in soybeans conducted by J. H. Palmer (Assoc Prof).

BASF Wyandotte has made a grant of \$750 to support weed control research in soybeans conducted by Prof. Yonce.

Monsanto Corporation has made a grant of \$550 to support weed control research in agronomic crops conducted by Prof. Gossett.

CHEMICAL ENGINEERING

S. S. Melsheimer (Assoc Prof) and Robert A. Adler (W. R. Grace Co) presented a paper, "The Characteristic Averaging Technique for Dispersion Convection Equation," at the AICA International Symposium on Computer Methods for the Partial Differential Equations, June 18.

CHEMISTRY

The American Chemical Society has provided a stipend of \$500 through Project Catalyst to support a high school student in a chemistry research program during the 1975 summer session. David A. Hagood (Daniel High School) is the participant.

H. G. Spencer (Prof & Hd) published "Complex Model for Copolymerization. Effects of Concentration on Copolymer Composition in Systems with a Single Self-Propagating Monomer" in J. Polym. Sci., Polym. Chem. Ed., 13, 1253 (1975).

CIVIL ENGINEERING

J. Edwin Clark (Assoc Prof) has been awarded a grant of \$6,000 from EXXON Education Foundation for implementation of a Guided Design Project.

CONTINUING ENGINEERING EDUCATION

A seminar on Industrial Applications of Membrane Separations for Wastewater Recycle, Resource Recovery and Energy

Conservation in Textiles, Metal Finishing, and Pulp and Paper Municipal will be presented August 19 by Continuing Engineering Education. The seminar is sponsored by Clemson's Colleges of Engineering and Industrial Management and Textile Science, S. C. Textile Manufacturers Association, U. S. Environmental Protection Agency, and S. C. Department of Health and Environmental Control. The seminar chairman is C. A. Brandon (Assoc Prof) of the Mechanical Engineering Department. The purpose of this seminar is to describe the potential of membrane separation for economical wastewater renovation and treatment to industrialists in the Southeast.

On August 11-14, Continuing Engineering Education will present a short school for water and wastewater treatment plant operators. This school will be held at Orangeburg-Calhoun TEC, Orangeburg, and is being sponsored by the Department of Environmental Systems Engineering and the Water and Pollution Control Association of S. C. Chairman is Fred Delvecchio (Proj Admstr) of Environmental Systems Engineering.

Ed Clark and Donald Stafford (Assoc Profs) of Civil Engineering will teach a series of one day workshops on "Uniform Traffic Control Devices" at four locations in South Carolina. The workshops are designed for local municipal and county officials and employees having responsibilities for planning, erecting and maintaining traffic control devices. The Department of Civil Engineering and the Governor's Highway Safety Program are sponsoring the workshops. They will be presented by Continuing Engineering Education in Greenville, Aug. 7; in Columbia, Sept. 11; in Florence, Oct. 2; and in North Charleston, Oct. 23.

ENVIRONMENTAL SYSTEMS ENGINEERING

A. R. Abernathy (Prof) was elected chairman of the S. C. Board of Certification of Environmental Systems Operators at its meeting in Columbia on June 19.

L. G. Rich (Prof) was visited on June 25 by Dr. Henning Mejer of the University of Copenhagen. Dr. Mejer, who teaches in the

environmental engineering program at that institution, uses Prof. Rich's book in one of his courses.

During the month of June, B. C. Dysart III (Assoc Prof) participated as a speaker in three Environmental Education Institutes for S. C. Teachers. These courses were sponsored by Clemson University, The Citadel and the University of South Carolina. Dr. Dysart's presentation was entitled "Informed Public Involvement in Environmental Decision Making: The Challenge to Educators."

On June 25, Prof. Dysart was the featured speaker at the Blue Ridge Conservation Summit at Black Mountain, North Carolina. His address to 500 of the National Wildlife Federation's 3.5 million members was concerned with the interaction of technology and the nation's natural resources. Prof. Dysart serves as a member of the board of directors of the Federation, the largest environmental organization in the world.

Professors Erik Sarnar and Peter Nilsson of the Department of Water Resources Engineering at the Lund (Sweden) Institute of Technology will be guests of the Department of Environmental Systems Engineering on July 25. They will meet with Drs. T. M. Keinath and L. G. Rich to discuss mutual research in the area of automation and control of wastewater treatment systems.

FORESTRY

An article was published in the most recent Journal of Wildlife Management (39:330-336) by R. F. Harlow, adjunct professor, Southeastern Forest Experiment Station, entitled "Deer Foods During Periods of Oak Mast Abundance and Scarcity."

R. F. Harlow and R. G. Hooper, Adjunct Professors, Southeastern Forest Experiment Station, were co-authors of "Some Winter and Nesting Seasons Foods of the Common Raven in Virginia," published in The Auk (92:298-306).

INTERDISCIPLINARY STUDIES

A. M. Weinstein (Asst Prof) received a three-year grant from the National Institute of Arthritis, Metabolism and Digestive Diseases for "A Prospective Orthopaedic Implant Recovery Analysis." The first year direct costs are \$31,120.

LANGUAGES

Margit M. Sinka (Asst Prof) read a paper, "The Symbolic and Structural Significance of Wound Imagery in Hartmann von Aue's Iwein," at the Tenth Conference on Medieval Studies, Western Michigan University on May 5.

MATHEMATICAL SCIENCES

J. V. Brawley (Prof), L. Carlitz (Duke Univ) and Jack Levine (NC State) have had the following article published: "Scalar Polynomial Functions on the nxn Matrices over a Finite Field." Linear Algebra and Its Applications Vol. 10 (1975) p. 199.

MICROBIOLOGY

The following papers were presented at the 75th Annual Meeting of the American Society for Microbiology, held in New York, April 27 through May 2:

"Effect of a Temperate Bacteriophage of Clostridium perfringens S9 on Sporulation and Spore Heat Resistance," by Adelle W. Stewart (former Grad Stu) and M. G. Johnson (Asst Prof Fd Sci and Microbiol).

"Sugar Uptake and Metabolic Studies with Protoplasts and Intact Cells of Bacillus megaterium KM," by G. L. Coffman (Vst Instr) and Ann W. Baxter (Assoc Prof).

"Multiple Antibiotic Resistance in Neisseria gonorrhoeae Isolated in South Carolina," by J. T. Powell (Grad Stu), R. K. Shockley (Grad Stu) and J. H. Bond (Assoc Prof).

"Populations of Methanogenic Organisms in Salt Marsh and Creek Sediments," by W. J. Jones (Grad Stu) and M. J. B. Paynter (Prof and Hd).

"Degradation of 4-Hydroxy - 3,5 - diiodo-benzo-nitrile in Pure Cultures," by J. C. Hsu (Grad Stu) and N. D. Camper (Assoc Prof Plant Path-Physiol and Bot).

At the 35th Annual Meeting of the Institute of Food Technologists, held in Chicago, June 8-12, the following papers were presented:

"Lactic Fermentation of Peanut Emulsions," by E. R. Bucker Jr. (Grad Stu), J. H. Mitchell Jr. (Prof Fd Sci) and Prof. Johnson.

"Effect of Heat and Cold Stress on Recovery of Vibrio parahemolyticus," by Christina Jost (Grad Stu) and Prof Johnson.

PLANT PATHOLOGY AND PHYSIOLOGY

F. H. Smith (Prof) attended a seminar on the use of the pesticide Temik as a nematocide at Raleigh, North Carolina. He presented a paper, "The Performance of Temik as a Nematicide for Cotton in South Carolina."

G. C. Kingsland (Assoc Prof) attended the annual meeting of the South Carolina Academy of Science at Charleston on May 27-29 and presented a paper, "Epidemiology of Puccinia graminis f. sp. tritici during 1974."

Prof. Kingsland also attend the Southern Small Grain Workers Biennial Conference in Baton Rouge, Louisiana, April 8-9, and presented two papers, "Control of Leaf Rust and Powdery Mildew of Wheat by Protectant or Systemic Foliage Fungicides" and "Wheat Stem Rust in South Carolina During 1974."

PHYSICS AND ASTRONOMY

"Oscillations in Baryon Antibaryon Elastic Cross-sections" by P. B. Burt (Prof) and E. M. Sebatu (Grad Stu) was a recent

publication in *Lettre Al Nuovo Cimento*
Vol. 13, p. 104, May 17, 1975.

Infracerebral Complex of Perinereis
cultrifera Grube (Annelida: Polychaeta):
C₁ and C₂ Cells."

ZOOLOGY

Averett S. Tombes (Prof) has published in
a recent issue of *Tissue and Cell* an
article, "The Fine Structure of the

Prof. Tombes presented "Neurosecretory
and Neural Innervation of Spermathecal
Muscles of Several Weevil Species (Insecta:
Coleoptera)" at the Southeast Electron
Microscopy Society Meeting in Atlanta,
Georgia, in May.

- 1-8 -- Architecture Exhibition: "1975 Thesis Exhibit," student projects representing the culmination of six years of architectural studies in the College of Architecture. Rudolph Lee Gallery, College of Architecture, Gallery open 9 a.m. - 4:30 p.m.
- 5-7 -- Workshop: "Supervisory Methods and Skills," to develop management skills for first line supervisors. Sponsored by the Office of Professional Development. Sirrine Hall. August 5, 8 a.m. - 5:30 p.m. and 7:30 p.m. - 10:30 p.m.; August 6, 8 a.m. - 5 p.m. and 7 p.m. - 10 p.m.; August 7, 8 a.m. - 5 p.m. Open to all interested parties. Fee is \$225.
- 6-7 -- Examinations
- 7 -- Workshop: "Maximizing Your Job Performance -- Women and Management," to help women set goals for bettering their job performance. Sponsored by the Office of Professional Development. Sirrine Hall, 8:30 a.m. - 4:30 p.m. Open to all interested parties. Fee is \$65.
- 8 -- Workshop: "Maximizing Your Job Performance -- Powerful Speech," to help women sharpen their communications skills. Sponsored by the Office of Professional Development. Sirrine Hall, 8:30 a.m. - 4:30 p.m. Open to all interested parties. Fee is \$65.
- 9 -- Graduation. 11 a.m., Littlejohn Coliseum.
- 11-12 -- Workshop: "Effective Time Management for the Secretary." Sponsored by the Office of Professional Development. Sirrine Hall, 8:30 a.m. - 4:30 p.m. Open to all interested parties. Fee is \$65.
- 12-13 -- Workshop: "Technical Workshop on Shuttleless Looms." Sponsored by the Office of Professional Development. Sheraton-Palmetto Inn, Greenville, S.C., 8:30 a.m. - 5 p.m. Open to all interested parties. Fee is \$150.
- 12-13 -- Workshop: "Motivating the Human Industrial Organization," to acquaint Management personnel with psychological methods used in industry. Sponsored by the Office of Professional Development. Sirrine Hall, 8:30 a.m. - 4:30 p.m. Open to all interested parties. Fee is \$115.
- 13-14 -- Workshop: "Effective Time Management for the Executive." Sponsored by the Office of Professional Development. Sirrine Hall, 8:30 a.m. - 4:30 p.m. Open to all interested parties. Fee is \$120.
- 14 -- Faculty and Staff Orientation, P&AS Auditorium, 8 a.m.





PROCEDURES FOR SUBMITTING NEWSLETTER MATERIAL

All Calendar items of campus events (speakers, films, meetings, seminars, sporting events, etc.) should be submitted by written memorandum directly to the Office of Public Relations, Trustee House. Information and news items from the Office of the President, Vice President for Business and Finance, Vice President for Executive Affairs, Vice President for Student Affairs and the Vice President for Development should be submitted by written memorandum to the Office of Public Relations, Trustee House. Information and news items from all areas under the Vice President for Academic Affairs should be submitted by written memorandum to Dr. Claud B. Green, Room E-102, Martin Hall.

The following deadlines prevail: Items to appear in the Newsletter published the 1st of each month must be submitted by the 20th of the previous month; items to appear in the Newsletter published the 15th of each month must be submitted by the 5th of each month.

